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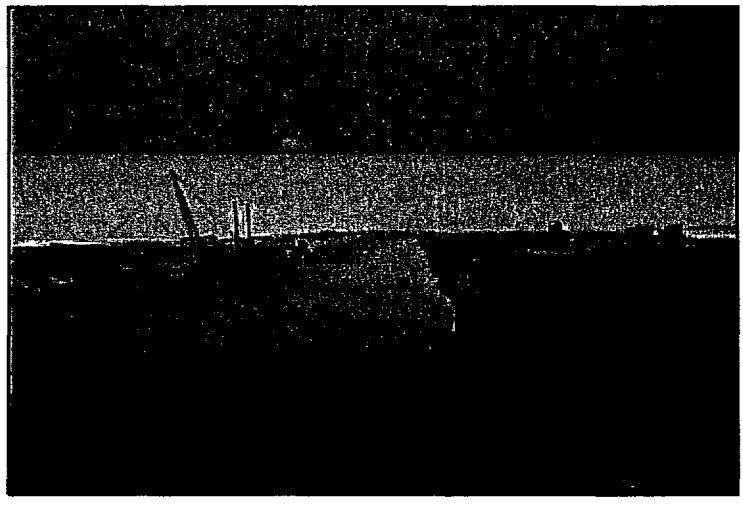
MID-TERM EVALUATION OF THE INSTITUTIONAL DEVELOPMENT SERVICES FOR THE SECONDARY CITIES PROGRAM



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Contract PCE-I-800-96-00010-00

Task Order N OUT-PCE-I-802-96-00010-00

Final Report

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PD-ABR-492

DATEX INC
Management By Design

July 20, 1999

Margeret S Pope
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Washington, DC 20523-1802

RE: Mid-Term Evaluation of Secondary Cities Program/Institutional Development Services
Contract PCE-I-800-96 00010-00, Task Oder No OUT-PCE-I-802-96-00010-00

DATEX, Inc is pleased to present PPC/CDIE/DI with a copy of the above-mentioned report as requested in the Scope of Work for the above evaluation activity

Sincerely,

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EXECUTIVE SUMMARY

Initiated in 1994, the Secondary Cities Project (SCP) combines policy reform with infrastructure construction with the goal of providing a sustainable foundation for improved health and living conditions in smaller urban centers of Egypt Using extensive criteria and after considering over 200 cities which needed new or improved water and wastewater services, USAID selected the following seven cities with a population of approximately 1 6 million Mansura, Luxor, Sharm El Sheikh, Nuweiba, and the Aswan Group – Kom Ombo, Daraw, and Nasr The SCP purpose is to expand, develop, and demonstrate sustainable, replicable water and wastewater facilities in selected urban population centers in different geographic areas and to strengthen institutional capabilities for supporting water and wastewater institutions in operating and maintaining the physical facilities

To achieve its purpose, the SCP employs a three-stage strategy

1) Stage One--Design of Action Plans for Reform
   USAID-funded technical assistance (TA) work with governorate and local officials as well as community representatives to develop individual time-phased steps needed to achieve cost recovery and autonomy for the local entities responsible for operations and maintenance (O&M) of w/ww systems in an individual city,
2) Stage Two GOE--Implementation of Action Plans
   USAID and the Government of Egypt (GOE) agree upon "substantial progress" toward reform as a prerequisite to construction The specific definitions of "substantial progress" to be detailed for each city and approved by USAID and the GOE in project implementation letters (PILs) before funds are committed for construction,
3) Stage Three--Construction of Water/Wastewater Infrastructure
   Construction activity to begin once the agreed upon progress has been achieved for each city

The SCP/IDS contract was signed on 22 August 1995 The contract provides for two phases corresponding to the first two stages of the three-stage strategy described above Commencing in August, 1995, and covering three years, Phase I comprised 23 specific action-oriented tasks Phase II (GOE implementation of action plans), began in July, 1998, through the exercise of an option dated 30 July 1998 and will cover five years, having a completion date of end-FY2003

The first component is being accomplished through an Institutional Development Services (IDS) contract with Chemonics International Inc (CI) and is the subject of this evaluation The second and third components are being undertaken through a separate Engineering Design and Construction Management (ED/CM) contract with Camp Dresser & McKee International Inc (CDM), which has also provided certain services under subcontract to the IDS Project

INTERIM EVALUATION AND TERMS OF REFERENCE

The Interim Evaluation was conducted during the period of 18 April to 2 June 1999 The six-member Evaluation Team consisted of institutional development and management specialists, financial specialists, and engineering specialists The team employed a methodology comprising report review, interviews, site visits, and team discussions The Evaluation Terms of Reference focused on the following topics

- Examine the effectiveness of the seven cities with regard to the policy recommendations and action plans developed by the Project
- Delineate the problems and constraints that have slowed or prevented the implementation of the recommended work plans presented by the Contractor
- Quantify the progress toward achieving the Project outputs

- Recommend actions that may be taken by USAID and the GOE to achieve Project goals and objectives, in the form of tasks to be carried out

PRINCIPAL FINDINGS AND CONCLUSIONS

Overall performance of the Project is considered excellent, with substantial progress being made toward meeting the individual project objectives At the end of Phase I in June 1998, three of the four Project governorates had achieved all conditions precedent (CP) and PILs were signed, enabling construction activities to begin Eighty-eight percent of all key benchmarks had been achieved at that time By the time of this evaluation (April 1999), all project sites had fully met their CP targets The evaluation team believes that the participating utilities have come a long way from where they and the rest of the sector stood at Project inception Qualitative and significant changes have occurred in key areas central to the development of autonomous entities These areas include organization and staffing, finance and administration, operations and maintenance, management systems, and training Particularly impressive progress has been achieved in revenue retention In comparison to non-Project sites -- sometimes contiguous governorates with similar conditions facing the w/ww sector -- the participating utilities show marked differences and are often envied by the surrounding areas

The contractor and USAID have performed well, exhibiting remarkable flexibility to respond sensitively to evolving and quite unique project needs at the individual cities No delays in implementation resulted from the action or inaction of either the contractor or USAID What delays have taken place result from the GOE efforts to resolve sector reform issues on a national basis, rather than addressing individual PEA incorporation plans at this stage

Performance-based contracting is an effective mechanism, saving one year in project length Outcome indicators in the form of benchmarks established for each governorate's action plan provided the means for measuring the success of the institutional strengthening activities The Contractor completed a significant majority of the required Phase I tasks on or in advance of schedule. The Evaluation Team believes that the clarity and structure of this performance-based approach—combined with a cost-plus-award-fee incentive mechanism—was a major factor in Phase 1 success. The result is cost savings and increased cost-effectiveness.

PRINCIPAL RECOMMENDATIONS

Nonetheless, much still remains to be done in order to meet one of the key objectives of the IDS Project by the EOP -- full and sustainable recovery of operation and maintenance costs While preventive maintenance, bill collection, staff productivity, and utility management all indicate significant improvement from pre-Project levels, full cost recovery by late 2003 remains a formidable goal Historical data series show that while revenues are increasing, so are costs The question of how intractable this gap is, even in the event of full autonomy, can be debated The path for combined water-wastewater utilities in Egypt is even more difficult While estimates vary, cost recovery ratios currently range from about 45% to 70% at Project sites, where calculable The deficit relates significantly to the lack of economic pricing for water/wastewater Extra-project constraints limit the slope of the path to cost recovery GOE laws that preclude meaningful tariff reform remain a stumbling block, but are being addressed by the parallel USAID-financed Legal and Institutional Reform (LIR) Project

Principal recommendations are to:

- **Encourage GOE to develop realistic options in order to provide capital financing for infastructure in the Water/Wastewater Sector.** Currently, high interest rates are a constraint on capital financing Under transitionary status, PEAs could be enabled to finance capped amounts of up to LE 2 million for small capital projects (i e rolling stock, small extensions to systems) as zero-interest loans After transition, enable the capital costs for small items to be financed at concessionary rates
- **Expedite the procurement of bulk metering equipment.**
  The transfer of authority for the provision of bulk meters has delayed the ability of all utilities to measure their influents and effluents accurately
- **Expedite the procurement of leak detection equipment.**
  Project data indicate a weighted Project-wide average of 40% unaccounted for water relative to total production System efficiency can be dramatically increased if system leakages and illegal connections are reduced
- **Expedite service metering program.**
  The service metering program, including installation, testing, and repair, should be expanded formally to include all classes of consumers Conservation is a normal result of metering and provides more trust and consumer confidence in billing
- **Review and revise staffing plans to concentrate resources on areas of key personnel where shortages currently exist, and urge GOE to expedite approval of new personnel needs.**
  Some sites are overstaffed with low-skilled personnel, while at the same time there is a shortage of key positions such as engineers and accountants The difficulty of obtaining GOE approvals required for new positions remains an obstacle Recommendations include staffing plans focusing on identified needs and proactive lobbying of GOE for expedited approvals

OTHER RECOMMENDATIONS

- Seek GOE co-operation for fast-tracking path to fuller financial viability of PEAs
- Fully activate all training committees, expand training program, especially for senior management
- Expedite health impact evaluation and health education plan/implementation
- Expedite establishment of an Occupational Health & Safety function at all sites
- Coordinate with ED/CM Project component on a low-cost waste treatment study under IDS
- Expand consumer education program

ACRONYMS

BOD	biochemical oxygen demand
CAOA	Central Agency for Organization and Administration
CDM	Camp Dresser & McKee International Inc
CI	Chemonics International Inc
CP	precedent condition (condition precedent)
DANIDA	Danish International Development Agency
DTII	Development Training II Project
ED/CM	Engineering Design/Construction Management
GOE	Government Of Egypt
IDS	Institutional Development Services
LIR	Legal and Institutional Reform Project
MHPU	Ministry of Housing and Public Utilities
MIS	management information system
MoF	Ministry of Finance
MoP	Ministry of Planning
NGO	non-governmental organization
NOPWASD	National Organization for Potable Water and Sanitary Drainage
O&M	operations and maintenance
OJT	on-the-job training
PD	presidential decree
PEA	public economic authority
PIL	project implementation letter
PSP	private sector participation
SCP	Secondary Cities Project
SOW	statement of work
TA	technical assistance
TAP	training administrative procedure
UfW	unaccounted-for water
USAID	United States Agency for International Development
w/ww	water and wastewater
WTP	water treatment plant
WWTP	wastewater treatment plant

CHAPTER I. INTRODUCTION

A Background of the Secondary Cities Project

1. History

USAID began investing in the water and wastewater (w/ww) sector in Egypt in 1977 By 1984, the Agency had authorized in excess of $2 billion to assist urban and rural populations in meeting their needs for safe access to potable water and related sanitation services These investments have enhanced human resource productivity and the quality of life, improved maternal and child health, and reduced environmental degradation At that time, Cairo and Alexandria had been the primary beneficiaries of the sector program, receiving some three-quarters of the funds while comprising about one-quarter of the national population

Nevertheless, the GOE and USAID recognized the acute development and environmental health need to provide improved w/ww facilities in "secondary" cities (i e , cities with populations between 20,000 and 650,000) Indeed, the National Organization for Potable Water and Sanitary Drainage (NOPWASD) had a backlog of more than 200 cities that had requested assistance to construct new treatment facilities and networks or to expand and rehabilitate existing ones USAID assistance was therefore sought to address this need

Although USAID investment in the w/ww sector had already resulted in a broad-based impact, the Agency recognized that in order to maximize the intended benefits, a number of technical, financial, institutional, and social issues remained to be addressed in the context of structuring future assistance
As a result, continued USAID investments in w/ww were predicated on the need for a clear, well-developed strategy toward sector reform that would address these issues At that time, the GOE had already been demonstrating significant movement toward reforms under two USAID projects Cairo Sewerage II and Alexandria Wastewater Systems expansion Key elements of those projects included GOE-developed, time-phased action plans detailing planned steps toward transforming existing wastewater authorities into autonomous organizations Additionally, two presidential decrees were signed to provide the enabling legal framework to support the action plan reforms USAID considered that such initiatives had placed the reform process in motion and set as conditions for future funding progress in the areas of cost recovery, revenue retention, labor force adjustment, tariff-setting authority, and the removal of legal constraints inhibiting autonomy USAID believes that sector performance is achievable through policy reform that focuses on such structural adjustment and the provision of capital projects

2. Project Description

The Secondary Cities Project (SCP) was designed in 1994 with the goal of providing a sustainable foundation for improved health and living conditions in smaller urban centers of Egypt The SCP purpose is to expand and develop sustainable, replicable w/ww facilities in selected urban population centers in different geographic areas and to strengthen institutional capabilities for supporting w/ww institutions in operating and maintaining the physical facilities This purpose conforms to USAID's policy on institutional development, which requires that institutional development be addressed in all projects to ensure that benefits can be sustained after external assistance ceases

Starting with a GOE list of over 200 cities, thirteen technical criteria were employed to select sixteen cities from nine different governorates for further study Four different regions were considered for closer study the Delta, Red Sea, the Sinai, and Upper Egypt The Delta has a combination of saltwater intrusion and

uncontrolled discharge of urban sewage, which is raising the groundwater level and threatening the groundwater supply For the Red Sea and the Sinai, the lack of access to potable water coupled with wastewater discharge in excess of treatment capacity threatens the coral reefs and constrains the growth of tourism A similar situation exists in the smaller cities of Upper Egypt along the Nile where little treatment capacity exists

The cities finally selected by USAID and the GOE (Mansoura, Luxor, Sharm El Sheikh, Nuweiba, and the Aswan Group – Kom Ombo, Daraw, and Nasr) accorded with some twelve additional criteria These included the potential for regionalization and the Agency's global strategy emphasizing the promotion of sustainable growth in local communities and direct impact on the poor The selected cities comprised a total 1996 population of approximately 1 6 million

By FY2003, it is expected that w/ww infrastructure will be constructed, operated, and maintained in six Project cities supported by responsible autonomous entities The outputs of the project are environmentally sound w/ww infrastructure constructed and functioning, establishment of sustainable institutional frameworks, and achievement of financial viability USAID project assistance funds three major areas of activity 1) institutional support and technical assistance, 2) engineering design and construction management, and 3) construction

The first component is being achieved through an Institutional Development Services (IDS) contract with Chemonics International (CI) Inc and is the subject of this evaluation Principal subcontractors to CI are Camp Dresser & McKee International Inc (CDM), Titus Austin Inc , Chemonics Egypt, and Arabic Software Engineering The second and third components are being undertaken through a separate Engineering Design and Construction Management (ED/CM) contract with CDM, which, as noted, has also provided certain services under subcontract to the IDS program

3 Project Strategy

To achieve its purpose, the SCP employs a three-stage strategy

a) **Design of Action Plans for Reform.**
- USAID-funded technical assistance (TA) to work with governorate and local officials as well as community representatives to develop individual time-phased action plans for each project city
- The action plans to specify steps needed to achieve cost recovery and autonomy for the local entities responsible for operations and maintenance (O&M) of w/ww systems

b) **GOE Implementation of Action Plans.**
- USAID to seek "substantial progress" toward reform as a prerequisite to construction within the time frame prescribed by the action plan
- The specific definitions of "substantial progress" to be detailed for each city and approved by USAID and the GOE in project implementation letters (PILs) before funds are committed for construction

c) **Provision of Water/Wastewater Infrastructure.**
- Construction activity to begin once the agreed upon progress has been achieved for each city

B Organization of the Report

The report is organized into four chapters Chapter 1 is this introduction Chapter 2 details the specific findings and recommendations regarding the IDS task performance, organized on the basis of the 23 action-oriented tasks in Phase I of the IDS contract The emphasis is on the contractor progress in achieving specific outputs Chapter 3 presents findings and recommendations regarding the effectiveness of the IDS program on local authorities, organized on the basis of "key items" 1-5, noted in Annex C

The emphasis here is on the response of the local utilities to the project inputs Because of the number of tasks and items in Chapters 2 and 3, the findings and recommendations for each (if applicable) are grouped together for ease in review Chapter 4 summarizes the major findings and conclusions regarding Phase I performance as well as principal recommendations for Phase II (A complete list of recommendations is serialized in Annex E)

C. Background of the Evaluation Team

This report has been compiled by six senior experts specializing in management, finance and administration, and Operations and Management in the area of water/waste water The Evaluation Team consisted of three expatriates and three local counterparts Brief overviews of their background follow below

Team Leader/Institutional Development and Management Specialist: ***Frank Carroll*** has over 20 years of experience in program evaluation, design, and institutional strengthening in the areas of water supply, waste water, sanitation, and environmental health As a consultant to the World Bank Technical Advisory Group, he worked with the Egypt General Organization for Potable Water, the Ministry of Health, Ministry of Housing, and Daqahliya Governorate civil engineering entities He led the Final Evaluation team for a four-country USAID Africa Water institutional strengthening program

Financial Specialist ***Michael Gaffen*** has over 20 years of experience in financial and economic analysis, strategic planning, policy review, and investment strategy for the infrastructure, energy and environmental sector worldwide He has worked extensively in the water and wastewater sector, particularly in restructuring and evaluation of tariff and rate structures in Egypt, Israel, Honduras, and Russia

Engineering Specialist ***Dan Hallett*** has extensive engineering experience in the water and wastewater sector throughout the Near East He has lived and worked in Egypt He has conducted a number of USAID project assessments of institutional strengthening programs, including the Canal Cities project and institutional strengthening of the National Organization for Potable Water and Sanitary Drainage

Egyptian Institutional Development and Management Specialist: ***Mohamed Farid Abd El-Moneim Sewelam*** is a technical advisor in policy reform and has USAID experience working on institutional development projects He has over 35 years of experience specializing in water and wastewater engineering and utility management, including five years directing and managing the municipal organizations for sanitary drainage in Cairo and Alexandria

Egyptian Financial/Economic Specialist: ***Mohamed El-Sayed Harfoush,*** former Undersecretary for Finance and Administration at the General Organization for Sanitary Drainage, has nearly four decades of experience in Egyptian public-sector financial management and administration Mr Harfoush was directly involved, as a representative of AGOSD, in the development of USAID's Water and Wastewater Sector Performance Indicators, and he was instrumental in securing AGOSD's policy reform achievements with the Ministry of Finance and CAOA.

Egyptian Utility Engineer ***Ahmed Mohamed Allam*** is a professional engineer with 32 years of extensive management and technical experience in all aspects of water and sewage production and distribution He has served as Operations and Management Specialist on USAID projects and as engineer in Iraqi State contracting company for water and sewerage projects He has also served for eighteen years in the Governorate Housing Department of the Qalubiya Governorate of Egypt

CHAPTER II. INSTITUTIONAL DEVELOPMENT SERVICES PROGRAM TASK PERFORMANCE: FINDINGS AND RECOMMENDATIONS

The emphasis in this chapter is on the progress of the contractor in achieving the outputs as defined by the IDS statement of work It is organized on the basis of the 23 Phase I implementation sub-tasks

A. TASK 1: Assessment of Counterpart Organizations

Task 1.1. Outline Legal Framework Constraints

The contractor provided project-wide assistance in analyzing Presidential Decree (PD) 281/1995, issued coincident with Project start-up [PD 281 established public economic w/ww authorities (PEAs) in seven provincial governates, two of which—Daqahliya and Aswan—are Project sites] The Contractor identified constraints (e g , staffing and tariff-setting restrictions) as well as opportunities (e g , revenue retention) The SCP/IDS design did not formally anticipate the existence of PD 281 as a guidepost for autonomous utility operations in some governorates In spite of the inherent constraints, therefore, the Decree somewhat clarified certain actions required under this task

In non-PEA areas (Luxor, South Sinai) and with its IDS partners, the Contractor delivered key assistance to local Project counterpart organizations and various central agencies, in analyzing and identifying the means by which these utilities could achieve autonomy, including

- traversing the local and central GOE approvals chain
- maintaining a stream of official correspondence from the local administration to the Ministry of Local Administration
- producing a report on achievements of the PD 281 authorities
- preparing of a dossier of intergovernmental correspondence on incorporation/consolidation
- communicating findings from a USAID-sponsored seminar (December 1996) on utility regulation
- staging a widely-attended national seminar on private-sector participation (PSP) in June 1997, explaining, among other institutional issues, legal constraints and opportunities
- conducting preliminary legal feasibility analyses with advice on enabling legislation for utility concession arrangements

Task 1.2. Outline Ways to Strengthen Utility Management Capability; Training Needs Assessment

The Institutional Development Services (IDS) training effort began with a general training needs assessment, resulting in a clear conclusion that skills were so low that initial formalized testing of skills would not be appropriate

The Contractor's deliverable, entitled "Training Plan Report," presented assessments of all Task 1 2 requirements, including a thorough review of in-country training course offerings from NOPWASD and from other utilities A few management courses offered by NOPWASD were considered useful for Project counterpart participation Some local GOE officials informed the Evaluation Team that the Damanhour Training Center (DTC) offerings were deemed unsuitable for Project use because of the "hands-on" nature of the IDS training strategy Nevertheless, much useful course material was obtained from DTC and modified for use in Contractor-provided governorate Training Centers

While twinning and other U S -based training experiences were investigated, the Contractor chose to postpone such "cost-intensive" considerations for later in the Project

Task 1.3. Automation of Management Systems

A MIS is essential to provide current and projected data and information on water flow, revenue, expenses, salaries, etc (i e , all data required for an effective management decision-making capability) The Contractor has initiated the design and operation of a functioning MIS unit in each of the four locations South Sinai, Luxor, Aswan and Mansura The Contractor has delivered appropriate training to MIS staff Personal computers (PCs), using the MS-DOS operating system, and associated software procured by the Contractor have a normal half-life of 2 years The software and hardware were acquired over two years ago, and therefore do not reflect current norms (i e , P2/400mh computers, with Windows 98 and MS Office 2000 suite, utilizing high-resolution display and laser jet printers) Nonetheless, the existing equipment quite adequately meets the foreseeable primary needs of the project The PC's all have built-in modems to facilitate communications among offices

None of the current MIS offices have telecommunication ports, and network capabilities have not been established While MIS departments are functioning well, there is currently no capacity for electronic data sharing among different offices within each organization For example, laboratory data is delivered "on paper" to MIS staff, who then key in that data Substantial benefits can be gained from a data sharing system including improved reporting, tracking of results, efficiency, management control and productivity Phase II should include an investigation into an appropriate automated data sharing solution Such a course of action would be the logical next step in system upgrading

Recommendation

- Provide technical assistance (TA) early in Phase II to assess the current and future benefits and feasibility of inter-departmental data-sharing systems

Task 1.4. Upgrade Financial Control Systems

The Contractor has been facilitating the gradual computerization of critical financial functions including payroll, revenue, accounting, procurement and stores Not all functions are yet automated at all locations, but the Contractor has effected significant progress along a reasonable path The Contractor provided background support for the managers and specific financial and accounting training for the staff to create an operational financial group All accounting systems are eventually to conform to the Egyptian Standard Accounting (commercial) system By the end of Phase I, commercial accounting had been implemented in Daqahliya and Aswan The Luxor and South Sinai utilities estimated that conversion from "shadow accounting" using the GOE system would occur by July 1999 and January 2000, respectively

Task 1.5. Identify Systems Required to Achieve Financial Viability

The Contractor identified a budget process and method of institutionalizing the procedures and elements of a budget in Daqahliya, Aswan and Luxor In South Sinai, training in budgeting was provided

Formal revenue-requirements and cost-of-service studies (within 10% accuracy for each utility) did not appear to be prepared The Contractor did perform, however, preliminary O&M cost recovery pricing studies for all seven cities

In addition, with its IDS partners, the Contractor conducted a more detailed tariff study for capital cost recovery in a public-private partnership in Luxor City Formal tariff studies were not conducted for other sites (Full cost and rate studies are scheduled for Aswan in Year 5 and other cities in Year 6)

Alternative revenue sources were researched in Kom Ombo (Aswan) and Mansura (e g , metering and connection fees)

Task 1 6. Inventory Control and Stores Management
The Contractor found procurement, inventory control, and stores management practices at Project start-up to be extremely haphazard and inefficient The Contractor has helped the initial random collection of stores and inventory control to move toward a computerized system, but this has not been implemented at all locations After discussion with counterparts, it was determined that the best approach toward automation would be to initially develop an intermediate Cardex system, which has been implemented at all sites The Contractor regards this achievement as a major step in the inventory management program towards developing a uniform database, which at this time is not a high priority

Task 1.7. Improved Organizational Effectiveness
The Contractor reviewed the pre-project, highly centralized institutional framework in which local utilities are historically embedded, emphasizing the fact that such entities have no organizational identity in the provincial administrations, and therefore no authority or public responsibility The Contractor analyzed the initial organization blueprints of the Central Agency for Organization and Administration (CAOA) for PEAs as replicates of the highly centralized model The Contractor identified the need of a modernized utility to incorporate more specialized organization at the local level The Contractor assisted in mobilizing local CAOA offices to lobby for decentralization, based on the principle of providing assured service

Task 1.8. Management Policies and Procedures
Following achievements under Task 1 7 above and with its IDS partners, the Contractor helped to effect rapid progress in comprehensive and detailed organizational design and staffing plans at PEA division and headquarters levels (Daqahliya and Aswan) These plans were established as benchmarks Manpower adjustment strategies (including Luxor as well) were also set as benchmarks The Contractor helped to prepare an organization plan for South Sinai with staffing requirements for the headquarters and management-level job descriptions The Contractor also assisted in drafting internal personnel policies and regulations (another benchmark) that introduced performance standards and creative approaches to PEA constraints During Year 1, the Contractor helped to prepare a training needs assessment plan, and in Year 2, a manual of twenty training administrative procedures (TAPs), establishing an internal assessment system

Task 1.9. Draft Systems Management Action Plan
All draft action plans providing detailed recommendations and procedures for utility conversion were completed during the first project year, i e , by the second half of FY95/96 In addition to this deliverable, strategic planning concepts were introduced and mission statements identified Capital plans were prepared for Daqahliya and Aswan Business plans for Daqahliya, Aswan, and Luxor (including a capital plan for Luxor) remained to be identified

B TASK 2. Preparation of Action Plans

Task 2.1. Develop Benchmarks toward Achieving Autonomy and Cost Recovery
The Contractor designed and implemented a series of benchmark quantitative indicators to measure the progress of Project utilities in moving from start-up status levels to achieving independence The benchmarks are available for all seven cities on a quarterly and annual basis

Task 2.2. Framework for Legal, Policy, and Institutional Reform
The PEA framework was identified as an important benchmark for utility sustainability in relevant Project locations

To promote the consolidation of utility activities in non-PEA areas (South Sinai, Luxor), the Contractor, with its IDS partners, helped to deliver key assistance to local Project counterpart organizations and various central agencies, in

- setting the main institutional benchmark as formation of a governorate utility department by governor's decree in South Sinai
- conducting a March 1998 workshop (Luxor) that developed a request to the Prime Minister for PSP plan approval, established as a USAID benchmark of "substantial progress"
- establishing transition management committees in all Project governorates
- establishing the SCP Steering Committee and enlarging its stakeholder membership
- mobilizing the official support of the SCP Steering Committee for incorporation
- mobilizing the support of MHPU/NOPWASD and MOP

Task 2.3. Finalize Training Plan
Training plan preparation has been a cooperative effort between the IDS Project staff (training and technical) and counterpart managers, resulting in Annual Training Plans, updated quarterly, based on priority Project implementation needs

Task 2.4. Approval of the Action Plans
On the basis of draft action plans completed during the Year 1 of the IDS Project, Final Action Plans were prepared PILS were co-signed specifying six CPs each for Aswan, Daqahliya, and Luxor The Action Plans also contained, respectively, 27, 28 and 27 benchmarks that the Contractor assisted in preparing An Action Plan was also completed for South Sinai during Year 1, but the PIL was not signed by the governor for several reasons, some of which related to the capital works component of the SCP The South Sinai Action Plan was eventually approved during Year 3 and specified 25 benchmarks, which included 8 CPs

C TASK 3: Implementation of Action Plan Reforms

Task 3.1. Legal Framework
Project Tasks 1 1 and 2 2, assisted by the contractor, enlivened the public debate over legal and regulatory reform of the sector The principal constraints identified by the SCP with CI assistance require sufficient attention as to justify a significant parallel effort through another project The responsibility for drafting of appropriate legal documents to facilitate the transition to autonomy of w/ww utilities through sector reform has been assumed by the USAID/Egypt Legal and Institutional Reform (LIR) task order for Legal and Regulatory Development of the Water/Wastewater Sector

Task 3.2. Management Training
In the effort to maximize overall utility cost savings, the Contractor developed a Training Plan in Phase I that largely focused on on-the-job training (OJT) in the use of leak detection equipment, sewer cleaning, meter repair, stores management, laboratory equipment supplied by the Project, and MIS and accounting systems Phase II training needs will be prioritized using more sophisticated methodologies such as cost/benefit analysis (i e , cost of training vs cost savings to the utility), reflecting the Phase II emphasis on sustainability

Professional development opportunities were provided through management training given to senior staff, both by the Contractor and through selected courses offered by NOPWASD In addition, key managers attended appropriate workshops available in-country, as well as one in Tunisia

As per the training model implemented by the Contractor, Level 1 (questionnaire responses of the trainees and instructor gathered at the end of the course) and Level 2 (testing by the instructor) evaluations have been routinely performed during training, while Level 3 (measure of workplace knowledge and skills transfer) will commence shortly A Project-generated report produced in June 1998, entitled "SCP/IDS Training for Results Report," provided an analysis of Level 1 and 2 results Although the data were somewhat sketchy, the conclusions were useful in modifying the Project's training

Task 3.3. Inventory Control and Stores Management

Initially, the Contractor developed one store in each utility as a pilot store at the water treatment plants in Mansura and Kom Ombo, and at the water and wastewater treatment plants in Luxor (Note A pilot store was not developed for South Sinai since service contractors provide maintenance) The program involved site selection, site preparation, furnishing, parts cleaning, shelving, parts classification, and recording The Contractor then introduced on-the-job training to apply fully and implement the Cardex Inventory Management System

Once the pilot store was fully functional under the Cardex system, each utility was encouraged to implement the same system itself in the conversion of remaining stores, as applicable, with the Contractor providing guidance only as needed After all the stores are converted, the Contractor will train and assist the counterparts in developing a coding system toward the eventual completion of an automated Inventory Management System integrated with the utility's Financial Accounting System

Benchmarks achieved

- Completion and efficient use of a pilot store and inventory control system in each utility
- Training of store managers in all utilities on basic stores management

Recommendation

- Encourage the utilities to request the Ministry of Finance to accept their new system of record-keeping so that the storekeepers can eliminate the Ministry's requirement to maintain a separate ledger

Task 3.4. Management Systems

With its IDS partners, the Contractor has designed and implemented an MIS ready to provide a wide range of data and information required for timely decision making Each location has a designated MIS staff of four and a supervisor, with associated computer hardware and software to meet most requirements The teams were generally well trained by the Contractor, beyond the current management requirements, and were anxious to acquire the latest level of computer hardware/software to respond more effectively to inquiries Some of the staff appeared to be under-utilized, and dependent for tasks on one client -- senior management The data and information could be a valuable asset to others in the organization

Project utility management exhibits different levels of utilization of MIS reporting capabilities The South Sinai MIS unit does not yet have cost center data to produce "real" reports for management, their approach has been to develop "shadow reports" as a training exercise, while management continues to use manually produced reports (On the other hand, in Aswan, the Secretary General of the Governorate—an ardent supporter of the IDS program—maintains an active file of MIS-produced reports for his use)

Recommendations

- Expand the commitment to use MIS information (reports, tables, charts, etc) for management decision-making
- Explore ways in which to make MIS information more accessible and useful for other (non-senior management) staff and departments who require current and reliable data (see Task 1 3)

Task 3.5 Financial Control Systems
All computer hardware/software systems appear to be operating as designed Implementation times varied by location, however Delays in implementation did not constrain operations and each office acquired skills within a time and procedure appropriate for the staff The initial schedule was designed as an indicative time period with flexibility in the operational schedule

A financial chart of accounts conforming to the Egyptian Unified Accounting System was to be developed and implemented at each location According to the information provided, this is now operational, although there have been some constraints on using the data, and parallel systems are operating until the management has the confidence to shift to the new computerized systems

Task 3.6. Financial Viability
For all locations, the Contractor helped prepare a budget framework with its IDS partners Each location is using the budget framework with differing levels of support or application At minimum, a shadow budget is operational with the staff developing the forecasts and tracking expenses Management confidence in the procedure varies by location, however

Task 3.7. Management Reform: Structure, Policies, and Procedures
With Contractor assistance, organization and staffing plans, both key benchmarks cited as CPs, were implemented during Phase I in Daqahliya, Aswan, and South Sinai Those benchmarks for Luxor were on hold due to changes in the approach taken by the City Council when PEA authorization was foreclosed at the national level Luxor's two plans were formalized, however, at the time of this evaluation Manpower adjustment strategies remained in progress in all relevant sites, which exclude South Sinai Personnel policies and regulations benchmarks were completed in Aswan and Daqahliya

Task 3 8. Internal Monitoring and Evaluation (including Health Impact data)
The Contractor's design work in corporate/strategic planning (a benchmark) included development of a model corporate plan Strategic planning concepts applied in the Project's quarterly management meetings with the governorates have generated several programs A formal strategic planning process was initiated in South Sinai during Phase I In addition, PEA department and section managers have been trained in planning improvement programs using logical framework analysis

MIS activities have included the preparation of technical, economic and financial data for some environmental health indicators The contractor, however, has not developed a health impact component that would assess, for example 1) the need for a health education activity and 2) the importance of coordinated planning of w/ww services so as to minimize potential adverse impacts of increased demand for ww collection, treatment, and disposal (This issue is dramatized by case in point in this project, i e , Kom Ombo Here, the chief of the city council reported that consumers pay up to LE 75 per month for up to three evacuations of domestic septic tanks Some commercial buildings have closed down because the cost of vacuum truck service exceeds the income from the building)

Recommendation
- Fast-track the design and implementation of the health impact component

D. TASK 4· Consumer Education Program

The Contractor produced an Action Plan for customer relations and public education programs The Contractor has not yet implemented formal consumer education programs in each utility, however Several

pilot interventions have been implemented, including a TV spot on Channels 6 and 8, radio and television interview participation, several briefing meetings/workshops for women's leaders in Mansura, for schools in Aswan and Daqahliya, and for elected officials in Luxor and Aswan The Contractor has also facilitated several school tours of w/ww treatment plants in Luxor, Aswan, and Mansura Counterpart staff have been recently appointed in all utilities, and, with its IDS partners, the Contractor has produced several draft reports, which the evaluation team reviewed and found to be comprehensive The approach features a hands-on workbook-type methodology, which will facilitate ease of use and Contractor monitoring

Recommendations

- Replicate seminars for women's groups in Aswan, Luxor, and South Sinai
- Encourage the formation of single-issue "environmental" non-governmental organizations (NGOs) in project cities (At present, NGOs often adopt environmental issues as a minor part of their activities, but members that are environmentally oriented may respond positively to the formation of a single-issue NGO)

E. TASK 5· Procurement of Project Equipment and Materials

Contractor procurement included computer hardware and software, all training center and pilot stores requirements, requirements for the model Kom Ombo Customer Service Center, furnishings for the Luxor water meter repair shop, pilot leak detection equipment, sewer cleaning equipment, and laboratory equipment Except for bulk metering, 10 PCs, and 3 servers, the Contractor procured all Phase I items as per the Action Plans Responsibility for SCP bulk meter procurement was transferred during Phase I to the ED/CM contractor Delay in bulk meter procurement has prevented Project-wide progress in accurately measuring unaccounted-for-water (UfW), which in turn has impacted progress in key service delivery and cost-recovery considerations The Phase II procurement plan has been negotiated with the USAID project office and awaits further internal USAID approvals

Recommendation

- The Contractor and USAID should maintain close coordination to provide timely procurement of equipment Flexibility should be maintained to take advantage of rapidly changing technologies, as well as in changing/adding required equipment that may be identified on a case-by-case basis as a result of Project achievements

CHAPTER III. LOCAL UTILITIES RESPONSE TO THE INSTITUTIONAL DEVELOPMENT SERVICES PROJECT: FINDINGS AND RECOMMENDATIONS

The emphasis in this chapter is on the response of the local utilities to the Institutional Development Services (IDS) Project inputs It is organized on the basis of Chapter 1, B, 1-5 (Scope of Work for the Interim Evaluation)

A. Examine the effectiveness and responsiveness of the seven cities with regard to the policy recommendations and action plans developed by the project.

In all cases, the Project has worked in a partnership with the cities to address the priorities of the utilities With few exceptions, the local utility counterparts have responded very effectively and seriously to the policy recommendations developed cooperatively through workshops and other means

By the end of Phase I (3 years), the seven cities (four governorates) had achieved the following status in meeting Action Plan benchmarks

	Aswan	Daqahliya	Luxor	South Sinai
Total Benchmarks	27	28	27	25
Completed	20	18	9	25
Underway	5	7	11	
Not Initiated	Bulk Meters Business Plan	Indus Pretreat By-laws Bulk Meters Business Plan	Incorporation Mnpwr Adjst Strat Pers Policies/Regs Bulk Meters Fixed Asset Regstr Business Plan Capital Plan	

The seven cities are nominally responsive to the Action Plans and agree with the policy recommendations Each manager indicates that policy recommendations should be adopted, but legal and other governmental controls sometimes constrain implementation Daqahliya and Aswan management appear to be especially responsive within the constraints imposed These PEAs represent some 76% of the total Project population of approximately 1 6 million These two sites, moreover, represent "secondary city" qualities more widely similar to the majority of the country and will provide examples for successful transfer of Project achievements to other PEA areas The management at Mansura appears to be particularly cognizant of the problems, motivated, and optimistic

Luxor and South Sinai, on the other hand, have made important advances in developing private sector participation (PSP) approaches These sites exhibit tourist industries that support the local economies and provide opportunities for both revenue enhancement and creative private sector involvement in w/ww utility services The route toward autonomy for Luxor and South Sinai has been less direct than for the PEAs, and different constraints have been faced While implementation has not proceeded as quickly in some areas as with the PEAs, Luxor and South Sinai can themselves provide examples of PSP alternatives potentially transferable to PEA utilities

Findings and Recommendations:

MIS is now operational.
Prior to the IDS Project, reporting systems in Egypt did not provide information essential for management decisions Information on water production, revenue, salaries, and electricity and other operating expenses was not available for decision making at the utility level At the time of the evaluation, each Project site exhibited an operational MIS to support a capability for effective management decision-making Each unit consists of a staff of four technically trained data experts, an MIS Manager, and associated hardware and software for the unit The individuals have been trained in MS Word, Excel and Access and the procedures for graphical display of data The training provided has been effective and all MIS staff appears to be competent in the diverse aspects of data collection, display, and presentation A baseline database is available for all criteria reflecting current and anticipated utility performance Staff appears to be more competent than the data-handling requirements This may provide an opportunity for them to offer their information services on an internal basis to other groups, data and information are essential ingredients in decision-making, and the MIS group can assist other divisions in expeditious information development

Recommendation

- Encourage the MIS team to share their data, information and analysis skills and service internally with other units at the utility The availability of a functioning MIS unit can facilitate making investment, financial, and operating decisions for every division

The financial control system has been identified and upgraded.
The financial system in 1995 was the basic system adopted by the Ministry of Finance to cover all activities of the municipalities and governorates All costs were aggregated into municipal accounts, which did not distinguish between water, wastewater or other services At the time of the evaluation, an operational financial group had been created at each Project site Critical financial functions including payroll, revenue, accounting, procurement and stores are on path to full computerization Intermediate and well-maintained systems, such as Cardex filing for inventory control, have themselves provided major improvements at all relevant sites Now, the recording of cash flows is moving towards providing a real-time, functional accounting system by January 2000 The PEA cities have completed one budget cycle of their own accounts For those utilities employing the w/ww department model (Luxor, South Sinai), "shadow accounting" records the portion of the MHPU budget attributable to the utility In Luxor, the MHPU is itself using the shadow data developed by the utility

Billing has been modernized and is functioning, and collections are improving.
Project-wide, the billing system has advanced from manual invoicing based on a water consumption estimate or a meter reading (if meters are available) to one based on computerized data entry and printed invoices for all governorates The computerized invoices include both water and wastewater bills on a consolidated statement, as well as a public information/water conservation note and contact point on the reverse Computerized invoices appear to have greater credibility than the manual version and generate faster payment response and higher revenues The hardware/software and training provided by the Contractor is appropriate for the requirements Although more advanced and faster computer hardware/software is available, the speed of manual data input for each consumer invoice would limit the need for faster computers, and the billing office would not benefit by acquiring more advanced equipment

Collection efforts were poor at project inception Most consumers were invoiced estimates of water use based on very low tariff rates The collection rate was minimal with no penalty for non-payment The IDS program has implemented an effective meter reading and billing system at each location Meter installation has been initiated in most residential areas and a bi-monthly procedure of meter reading and billing has

been implemented The bill collector manually provides the invoice to each consumer, who usually pays within a two-month period prior to the next invoice Customer Service centers (including one most recently established in Kom Ombo) have been designed to clarify invoices and correct or adjust problems associated with the normal water delivery system The new billing procedure is moving from a test area in Mansura City to the greater Mansura area with anticipated improved revenue

On the other hand, further necessary improvements in collections remain to be achieved There was no reporting of an aging analysis of accounts receivable, or attempts to expedite payments in arrears Social policy may dictate against shutting off water connections for non-payments of lower income consumers Yet a review of the largest accounts delaying or not paying their water invoices includes tourist establishments and government agencies Autonomous w/ww utilities may need to clarify service termination policies, a common feature of other types of utilities such as electricity and telephone services

At this stage there are several potential procedures which can further improve the billing process and could be explored for Phase II One is the automated meter reading system using a hand-held meter reader This system permits the meter reader to directly insert the current reading on a hand held calculator/computer, which is then inserted at the end of the day at the home office computer for automatic invoicing without further data input requirements Such a system can reduce transposition errors and expedite the data collection process, avoiding two manual data entries It could also address meter-reader staffing shortages at some locales, notwithstanding excess staffing in some non-technical grades

Recommendations

- Conduct a study to identify characteristics of payments in arrears
- Initiate a test cast to determine if hand-held meter readers with automatic invoicing capabilities improve operations One or two sample hand calculators could be borrowed for a district in Mansura in order to compare the results with the current standard manual meter reading and collection system procedure The test devices could be purchased if the results are positive
- Expand the location and hours of the Customer Service centers to permit direct payment by a wider range of customers, who can not pay the collectors directly

Inventory controls and stores management is moving to systematic control

The initial random collection of stores and inventory control is on a path toward a computerized system, but this has not been implemented at all locations Utility staff have responded well to the implementation of an intermediate Cardex system, which provides a staged approach to automation In order to optimize facility operations, it is essential that all stores and stockpiles eventually be systematically collected in a uniform database The process has been slow at some locations, but the success of the Cardex system represents a quantum improvement that meets current needs

Recommendations

- The staged approach to automation illustrated by the Cardex system should serve as a model for non-SCP-assisted divisions
- Procurement should be made flexible with this phasing so as to ensure the benefit of rapid marketplace innovations (e g , rapid changes in computer hardware and software standards should be considered when detailing procurement specifications)
- The stores and stockpiles should be established on an operational database as soon as feasible for improved control and planning

Systems for improved operation and maintenance are enhancing service delivery.

Action plan goals in service delivery during Phase I were limited to the development of two Annual O&M

Plans with budgets and the installation of bulk water meters The provision of bulk water meters was subsequently transferred to the SCP ED/CM Contractor In South Sinai, the Phase I action plan also called for the development of contracting documents to be used for the first time in July 1999 for their service contracting These benchmarks were met by all utilities

A key element in the responsiveness and effectiveness of these cities in implementing the Project's action plans is the exceptional level of Contractor flexibility to meet the needs and special requests of these cities

The following illustrates several of the more notable examples of responsiveness of the cities to service delivery activities

- After completion of the pilot store in Kom Ombo, the storekeeper, without Contractor assistance, prepared a nearby store for pipes and fittings
- City engineers in Aswan and Mansura were able to prepare (with only minor corrections) their annual O&M plan and budget without contractor assistance in the second year of Phase I
- Sophisticated graphic presentations of operational data are routinely prepared by the MIS section in Luxor, distributed in a timely manner throughout the utility, improving the facilities operation and emergency awareness by key managers (E g A high BOD measurement from the WWTP effluent was discovered within one day, and corrective action was able to be taken in a timely fashion)
- Luxor, Aswan Group, and Mansura routinely use laboratory tests to modify facilities operation, improving operating efficiency and product water quality
- At the request of Project cities, the Contractor advanced the scheduling of their training in emergency operating procedures

Recommendation

- The Contractor should maintain the same level of responsiveness to the services delivery needs of the cities in Phase II as in Phase I

Customer Services programs are seen as a critical factor in revenue collection

Customer Services programs have been more active since the Project has judged their success to be a critical factor in revenue collection The Kom Ombo Customer Service Center has been operational for nearly one year, and has been developed as a pilot center for the Project Its effectiveness is reflected by the impressive increases in revenues collected by the utility Also, all utilities have adopted the printing of customer service/awareness messages on the reverse side of water bills While GOE law allows for incentives of up to 3% commission for bill collectors, most utilities expressed a lack of personnel (both bill collectors and meter readers) as a remaining problem

Benchmarks achieved

- Successful operation of a pilot Customer Service Center in Kom Ombo
- Adoption of incentives program in PEAs for bill collectors
- Significant revenue increases in Kom Ombo and Mansura
- The addition of 1000 new customer connections since Project start-up in Kom Ombo, largely attributable to the customer service center

Recommendations

- Accelerate replication of successful Kom Ombo Customer Service Center in other Project cities
- Evaluate use of Customer Service Center in Kom Ombo for potential savings in staff use (Several windows were observed to be under-used during the two visits to the Center)
- Alternative radio and/or telephonic communications systems should be compared and provided to all project locations to facilitate customer service, collections and O&M

B Delineate problems and constraints which have slowed or prevented the implementation of the recommended work plans presented by the Contractor

Findings and Recommendations·

Lack of bulk meters have limited the ability to measure of influents and effluents accurately.
The transfer of authority for the provision of bulk meters on facilities from the SC/IDS Contractor to the SCP ED/CM Contractor (CDM) has delayed the ability of all utilities to accurately measure their influents and effluents, which is necessary to maximize operational efficiency (minimize in-plant losses) and correct errors in flow estimation, obtain data for leak detection in mains, and provide data for peak flow estimates, which are necessary for emergency management and capital improvements planning These critical data also have obvious implications on operational cost savings (and therefore cost recovery), and may also be used to estimate large unmetered flows as well as gross illegal connections and other unaccounted-for water

The uncertainty of common flow estimation techniques is exemplified by an example from a recent DANIDA project in Aswan For a local water company, the governorate estimated annual production of 77 million m3, based on facility operating-hour records and pump design capacities A detailed survey of actual operating hours yielded an estimate of 58 million m3 for the same facility A subsequent engineering evaluation based on an inspection of plant equipment itself concluded that actual production did not exceed 27 million m3

Recommendations
- The Contractor and USAID should coordinate closely with CDM to speed bulk meter installations at all sites
- Service meters and the establishment of meter repair facilities should be facilitated for all unequipped sites as soon as possible

Lack of leak detection equipment has compromised capabilities for solving UfW problems
While the Project provided leak detection equipment for each utility for pilot operation, this equipment is only effective at depths up to one meter and where pressures are significant Their application has thus been largely limited to rehabilitating service connections and locating buried manhole covers In the West District of Mansura, where their use has been most comprehensive (all service connections have been tested at least once), estimates are that only two percent of total system leaks have been detected

Recommendation
- The leak detection equipment scheduled for Phase II procurement should be fast-tracked for delivery and use, beginning in Mansura

Administrative, technical challenges have delayed progress in South Sinai
In South Sinai, a two-year delay in governorate co-signature on the project implementation letter (PIL) delayed implementation on a timely draft Action Plan prepared by the contractor This delay in part related to the capital works component of the Project The new governor requested PIL changes that more accurately reflect a private sector participation approach, and the Contractor is now fully engaged in Project activities

Project implementation in South Sinai has also been hindered due to the complex ownership and responsibility relationships in the provision of water and wastewater services in the Project cities, the poor

present condition of the service networks, and the paucity of operational water meters The utility does not currently possess the capability to adequately monitor private sector performance on O&M contracts On-the-job training in the use of leak detection equipment provided in Phase I cannot be effective in Nuweiba since the network's pressure is not sufficient for accurate measurements

Recommendations

- The Contractor should provide additional training in contracting and contract supervision, particularly for system operation and maintenance
- As stated in an earlier recommendation, establish meter repair facilities and provide/install service meters in South Sinai upon Phase II procurement

GOE policy decisions, lack of central physical location, affected progress in Luxor

In Luxor, which was not included in P D 281, certain key benchmarks were attained quickly Delay in a decision on incorporation by central GOE authorities slowed implementation, however Further, the city council took an innovative approach to PSP concession tender, which nevertheless also introduced delays because of the unique path required to develop the final Action Plan On the other hand, the evaluation team regards this delay as inconsequential in light of the demonstration effect provided by the PSP approach

Another delay impacting full implementation of management and organization plans in Luxor is the absence of an adequate central physical structure consolidating all functions of the nascent utility

Recommendation

- A central physical structure consolidating all principal functions of the Luxor utility should be provided as soon as possible

Staffing challenges are a key constraint

The difficulty of recruiting key personnel has been and continues to be a challenge to more effective utility management Some sites are overstaffed with low-skilled personnel (e g Mansura and Aswan), while at the same time there is a shortage in key positions, such as engineering and accounting The difficulty of obtaining GOE approvals required for new positions remains an obstacle (see Section C)

While not significantly affecting Phase I implementation sequences, a present shortage of qualified civil engineers and skilled laborers in Luxor, Aswan headquarters, and the Aswan Group cities must be addressed to fill the Project's more intensive needs during Phase II Also, Aswan Group has only two chemists for the two existing laboratories and the new laboratory at the new Fatera WTP that is scheduled to be turned over from NOPWASD to Kom Ombo Division in June 1999

Implementation of action plans will continue to lag in South Sinai until the critical lack of key personnel is addressed The most obvious constraint throughout is the difficulty in recruiting skilled managers and technicians to fill key positions in Project organization plans For example, after several years of Project implementation, Sharm el Sheikh only has one engineer in the utility, and he is not even available full-time for the Project Also, the General Manager, nearing retirement, as well as the HQ engineering managers are still maintaining their former positions within other governorate directorates

The Project's emphasis on revenue collection is driving personnel shortages for bill collectors and meter readers in all Project utilities

Recommendations

- Review and revise staffing plans to concentrate resources on areas of key personnel where shortages currently exist
- Proactively urge the GOE to expedite approval of new positions and financing in key personnel areas (See Section C)
- Explore imaginative incentive programs to attract qualified personnel
- Seek ways to maximize productivity of under-utilized staff in creative ways within the organization (at least one utility, Mansura, is successfully doing this), or even outside the organization, such as selling marketable skills (e g , MIS, training and laboratory services) to non-Project utilities

Capital shortages impact operation and maintenance needs

Another constraint on Project implementation in all utilities is the continued shortfall of funds available to the utilities An example is the inability of the stores to purchase sufficient spare parts to meet the O&M needs identified in Project-generated Annual O&M Plans Another example is that although an assessment identified several safety improvements required at compact water treatment units under the management of the Aswan Group, funds were not prioritized for this need

Finally, the WWTP in Mansura, built by NOPWASD prior to Project start-up, has yet to be turned over to the Daqahliya utility due to yearly disputes between the local utility and NOPWASD on the condition of the facility This delay has hindered the Project implementation of on-the-job training of O&M procedures for this facility Presently, 29 utility staff are allowed only to monitor and observe the operation of this facility, which has more than 50 corrective maintenance items pending

C. Assess any other constraints within the GOE environment that mitigate against achieving overall project objectives

The Presidential Decrees, generally including 281/1995, and other legal authorities present many constraints impeding the progress of project programs, such as

- Salaries and incentives are tied to the standard civil service scale
- Approval of the CAOA is necessary in any study for organization, staffing, and job classification, a difficult process requiring hard negotiations and significant time, in turn affecting personnel availability
- Ministry of Finance approval is required for the funding for new staff positions
- Approval of the Cabinet is required for raising domestic tariffs
- Limited authorization is given in dealing with personnel management, which is controlled by Law 47/1978

GOE environment constraints impede the path to full financial viability for PEAs

Current legal provisions for PEAs do not provide mechanisms for covering the shortfall in revenue collection, funds formerly supplied by the MoF For example, government policy makes it difficult for PEAs to set tariffs that reflect the economic or even financial cost of w/ww services As a result, PEAs are facing a structural impediment to achieving full recovery of their O&M costs

As a result, difficulties remain in identifying sources for capital investment and covering the deficit between revenues and operating costs This constraint has had a negative impact on the ability of plant managers to provide for efficient operation and scheduled maintenance developed in project-generated annual O&M plans Nascent PEAs are in the same situation with respect to capital financing (Bab III) for limited capital needs such as network extensions, rolling stock etc

In lieu of full freedom to set tariffs, a transitionary period during which PEAs were given MoF support for low interest loans and/or revenue support to cover shortfalls, would enable PEAs to meet the goals of quality O&M and improved service delivery In that PEAs are faced with wide challenges in establishing fully autonomous operations, their potential success or growth would benefit significantly from this grace period Formal recognition of "transitionary status" should be sought through the office of the Prime Minister

Recommendations

- Seek legal and policy approvals for more authority to set tariffs in governorates to recover greater portion of costs
- Seek GOE approval for a controlled, five-year transitionary status from the time of the establishment of a nominally autonomous utility
- Each PEA should develop and submit to the appropriate authorities a formal transition plan that provides an outline of its proposed path for achieving full O&M cost recovery
- Seek GOE approvals (MoP, MoF, and PM) for capital investment grants and/or loans (at concessionary rates) to PEAs Also consider zero interest loans for capital investment during the transitionary period Transitional supplemental funding should be provided to PEAs prior to full cost recovery attainment

Public service remuneration levels result in shortages of specialized personnel

The constraint of public civil service salaries in comparison to private remuneration can result in shortages of specialized personnel with appropriate qualifications to fill management and technical positions in the organizational structure (e g , engineers and accountants) This constraint is most acute in the sites at South Sinai and Upper Egypt, and as a result these sites risk not achieving overall project objectives and/or implementation delays (noted in B "Staffing challenges") (However, lower demands in South Sinai may call for reduced staffing in some areas, such as MIS)

Recommendations

- Give more freedom to w/ww utilities to overcome the constraints of Laws 47 and 26 (e g , enabling utilities to make personnel changes and adjust salaries with incentives and bonuses)
- Urge the CAOA to expedite approval of the organizational structure and to help to finance staff positions and bonuses
- It is suggested that the staff size be limited and reduced in South Sinai to only two each at the MIS, accounting, billing and data analysis groups Similar scrutiny should be provided for other locations in Upper Egypt

Institutional changeover in authority causes concerns for quality O&M

A disagreement over the turnover of the existing Mansura WWTP from NOPWASD to the project utility has precluded the utility from the control that would enable it to take responsibility for operating and maintaining facilities at its design levels Because of the disagreement, NOPWASD has operated and maintained the facility under private sector contract for several years, and comprehensive preventive maintenance has suffered A recent utility-contracted assessment itemized more than fifty defects, a finding with which NOPWASD disagrees

Insufficient co-ordination between the ED/CM project (or NOPWASD) and the IDS project results in lack of adequate training of utility engineers during the construction and startup phases of new treatment plants This is a concern for the new Fatera WTP in Kom Ombo and the WWTP under construction in Mansura

Recommendations

- Urge the MoHPU to assist in the turnover of the WWTP in Mansura
- Better coordination between ED/CM project (or NOPWASD) and the IDS project would provide improved training, both during construction of new facilities and first year of operation of new facilities
- The Contractor should provide the necessary extra level-of-effort to assure the continuous O&M of the new Fatera WTP (Kom Ombo) in the Aswan Group upon turn over from NOPWASD Training budgets for additional operators should also be made available to the Aswan Group Aswan PEA and NOPWASD should work cooperatively to expedite facilities turnover

Delays in MoF disbursements impede quality O&M

The Ministry of Finance maintains much influence on overall project progress Utility managers depend on this ministry for timely subsidies to operate and maintain their facilities as per Project-prepared plans Delays in MoF disbursements were reported frequently by utility managers

All budget line items must conform to MoF regulations Essential elements are regularly not approved by the MoF These elements include equipment (e g , telephone lines) critical to the utilities for routine and emergency communications, and for communication among Project-supplied computers within the utility The Aswan Group is in great need of communication equipment, and Luxor also has shortages

Recommendation

- Ministry of Finance should be encouraged to show more flexibility to the needs of this important Project The LIR task order output should help to solve this problem for the utilities

D. Assess the effectiveness of the two established Public Economic Authorities (PEA) in Aswan and Daqahliya and plans to sustain the water and wastewater facilities

The Evaluation Team considered the effectiveness and sustainability of PEAs as demonstrated by decentralized management, cost recovery, and improved service delivery (This analysis does not preclude achievements in these areas by Luxor and South Sinai, but rather is directly responsive to the question)

Institutional sustainability. Formal PEA autonomy facilitates dynamic decentralized management

While the enabling decree establishing the autonomy of PEAs in Aswan and Daqahliya presented certain constraints to autonomous operation (e g , restrictions on tariff setting, staffing, and central budget subsidy), it also offered improved institutional freedom This formal autonomy, supported by mission statements, has allowed the utilities to more easily develop organizational identity and morale The creative management and empowerment of staff that result have been a critical ingredient to increasing the slope of the trajectory to institutional, economic and technical sustainability

The IDS program for PEAs also embodies a team concept, which has been a key element in their success The team brings together local utility staff, governorate political authorities, the donor, and the Contractor, with central GOE support from the Project Steering Committee, to achieve the Project goals (This team concept also applies to non-PEA approaches within the project)

Economic sustainability Utilities based on PEA models show greatest cost recovery

While the PSP models, illustrated by the Luxor and South Sinai utilities, offer validity and opportunities in their own right, the utilities based on the SCP/IDS-supported PEA model (Aswan and Daqahliya) have exhibited the fastest growth along the path to autonomy and sustainability during Phase I This is illustrated by Year 2 approval of Action Plans and higher cost recovery percentages (see Annex F)

While the early years of the Project have faced uncertainty of funding (see section C above), the strength of the PEAs leadership and participation of staff has nevertheless produced imaginative ways to generate/save revenues for strategic operational needs

Technical sustainability: Improved O&M

The IDS team has instilled the Project goal of technical sustainability very clearly to all utilities, even though most of the Project interventions that will have direct bearing on improved service delivery issues, (e g , enhanced infrastructure) are to be implemented fully in Phase II One example of sustainability already adopted is the value of preventative maintenance, which has been carried out routinely in Aswan and Daqahliya, and has demonstrated savings in operational down-time

Other Phase I accomplishments that bear on achieving sustainability of PEA facilities include

- Counterpart development and use of annual O&M plans and budgets for FY98/99 with Contractor oversight only
- Counterpart replication of pilot store in Kom Ombo (Aswan) without Contractor assistance
- Aswan Group and Mansura routinely use laboratory tests and MIS reports to modify facilities operations, improving operating efficiency and product water quality

Recommendations

- Aswan and Daqahliya should host workshops for non SCP-assisted PEAs These should include Beni Suef, Fayoum, and Minya, all soon to receive support in the Middle Egypt project
- The IDS program should horizontally transfer imaginative sustainability proposals among all Project utilities, including non-PEA utilities
- Because the Luxor and South Sinai utilities (non-PEA entities) have only recently been established, USAID should re-evaluate their progress within one to two years (i e , 2000 or 2001)

E. Evaluate the overall effectiveness of the training program in achieving its objective

The training programs had two objectives 1) to improve employee performance through the establishment of internal training facilities and programs, and 2) to establish by Project completion a functional Training Department within the utility which will provide a fully-trained utility staff whose performance supports the strategic goals and minimizes performance gaps The training programs also will incorporate the following objectives in Phase II for improving management capabilities establish effective management and supervision capabilities and decrease the number of emergency problems in the utilities

During Phase I, fully equipped Training Centers were established in each utility In addition, each center has had a full-time training manager, and has conducted training courses for at least one year (Details of some of the main training activities conducted in Phase I are presented in Chapter II) Except for senior management training, the amount of training meets the immediate needs of current staff Consideration should be given to attrition, however, and additional personnel should be trained for key positions

While the training programs are only in their infancy, their focus has already closely followed the above overall objectives For example, the training courses given in Phase I primarily focused on the early Project/utility strategic goal of cost recovery through training in MIS, cost accounting, leak detection, meter repair, laboratory testing, and general facilities O&M -- those activities that will provide early cost savings for the utility

All training managers have been carefully chosen All have enthusiastically embraced the goals of the Project and have a clear understanding of their critical roles in the Project and the utility The training manager in South Sinai has demonstrated exceptional zeal, conducting regular and active Training Committee sessions and proposing the solicitation of outside trainees to attend training sessions on a fee basis

Although the implementation of formalized trainee on-the-job follow-up evaluations (Level 3) are scheduled to begin in the next year, all training managers have been informally following up their trainees These follow-ups should also include an evaluation further downstream of course completion date (e g , one year) On-the-job performance of these trainees was uniformly reported by their supervisors to be significantly improved due to the training activities Certainly, the successful on-the-job use of technical and reporting skills that were provided by training is demonstrated by the effectiveness of the leak detection program, the sewer cleaning program, the meter repair program (in Luxor), the development and routine use of Annual O&M Plans, the development and use of the pilot stores (and their replication in Kom Ombo), the efficient operation of laboratories, MIS departments (and their coordinated efforts with the laboratories and other departments in cycling data into useful management tools), accounting departments and billing centers, among others

Plans for Phase II training activities are comprehensive, both in provisions for staff/technical and for middle/senior management training tracks Also, during Phase II implementation the full evaluation cycle will be applied to assure continuous feedback to maintain optimum strategic use of training course offerings and their quality In this vein, the Training Committees are critical in informing utility managers of course offerings and in prioritizing training scheduling to corporate strategic needs

Phase II upper management training will be largely rotated among the four governorate offices, bringing together all these staff at a single venue, and will focus on skills that are particularly relevant to autonomous entities such as communication with outside authorities and the private sector and stress management

Key benchmarks achieved by the Project in training may be summarized as follows

- All governorate-level Training Centers have been established, furnished, equipped, adequately staffed, and have been implementing useful training sessions for at least one year
- Verification of the benefit of Project training has been achieved by the enthusiastic response of managers and supervisors to trainees' improved on-the-job performance, directly resulting in improved operation and cost savings
- Nearly complete total integration of utility training efforts has been achieved since the Training Centers are viewed as a key part of the "corporate family"

Recommendations

- Extend the Project training model, in which training is closely integrated with implementation and highly flexible in meeting specific utility development needs This extension should account for attrition It could also take the form of more intensive training of trainers (TOT) component, which might then provide the opportunity for Project utilities to market training services to non-project utilities that develop autonomy strategies
- Provide more senior management training, considering the planned Phase II intensity as a minimum level
- Add a level of training assessment scheduled for 6-12 months from the course date
- To complete the integration of training efforts within the utility, the Training Committee must become operational in Aswan, Luxor, and Daqahliya While presently the Contractor has suggested that this

Committee meet semi-annually, it may be more beneficial to meet quarterly to correspond with the quarterly cycle of Annual Training Plan reviews

- Explore opportunities to invite private sector and other regional utilities to provide trainees on a fee-basis to improve economic sustainability, as is being proposed by the training manager in South Sinai
- Off-shore training experiences, including twinning-like arrangements, if deemed useful, should be postponed to the last years of the Project This would assure the most efficient use of managers' time through continued in-country training provided by the high-achieving, integrated Contractor-counterpart training needs assessment system
- The Contractor should explore imaginative solutions to the pressing need of the governorate-based utilities to provide training to their non-Project Divisions For this purpose, once DANIDA's parallel project in Edfu and Aswan cities is re-started, lessons can be learned from training efficiencies among different Divisions

CHAPTER IV. MAJOR CONCLUSIONS AND RECOMMENDATIONS

A. PERFORMANCE THROUGH IMPLEMENTATION PHASE I

1. General

Overall performance of the Project is considered very good, with substantial progress being made toward meeting the individual project objectives At the end of Phase I in June 1998, three of the four Project governorates had achieved all precedent conditions and PILs were signed, enabling construction activities to begin Eighty-eight percent of all key benchmarks had been achieved at that time By the time of this evaluation (April 1999), all project sites had fully met their CP targets The evaluation team believes that the participating utilities have come a long way from where they and the rest of the sector stood at Project inception Qualitative and significant changes have occurred in key areas central to the development of autonomous entities These areas include organization and staffing, finance and administration, operations and maintenance, management systems, and training Particularly impressive progress has been achieved in revenue retention In comparison to non-Project sites -- sometimes contiguous governorates with similar conditions facing the w/ww sector -- the participating utilities show marked differences and in some cases present as objects of envy

Nonetheless, much still remains to be done in order to meet one of the key objectives of the IDS Project by the EOP -- full and sustainable recovery of operation and maintenance costs While the trajectory of the revenue-to-cost ratio appears from limited data to follow an upward path at all sites, technical, legal, and social changes will be required to sustain the significant progress already achieved Inter alia, these factors include improved data collection for MIS, improved plant-network efficiency, tariff reform, and consumer willingness to pay for the economic cost of improved service As revenues approach costs, additional gap-closing measures become more difficult to attain, and therefore the value of strategic planning and creative energy will increase

2. SCP/IDS Contract Team

The contractor and USAID have performed excellently, exhibiting remarkable flexibility to respond sensitively to evolving and quite unique Project needs at different sites No delays in implementation resulted from the action or inaction of either party All GOE interviews rated the performance of both at the highest level In several cases, these stewards have managed to facilitate the redirection of apparent implementation bottlenecks into opportunities Including the GOE counterparts, the SCP triad function well as a team and appear to approach the hard tasks embodied in Phase II ahead with high enthusiasm and morale

3. Summary of Key Findings and Conclusions

Overall

- **Project Progress**

Factor	Daqahliya	Aswan	Luxor	South Sinai
OVERALL	**Very Good**	**Very Good**	**Good**	**Satisfactory**
Action Plan Implementation	Very Good	Very Good	Satisfactory	Good
Organization/Staffing	Excellent	Very Good	Good	Substandard
Revenue/Cost	Excellent	Very Good	Good	Substandard
MIS	Excellent	Very Good	Excellent	Very Good
O&M	Good	Very Good	Excellent	Good
Training Center	Very Good	Excellent	Very Good	Very Good
Customer Service	Very Good	Excellent	Good	Satisfactory

- **The Contractor and USAID have performed excellently in the timely delivery of most inputs**
- **Implementation delays did not result from action or inaction of the Contractor or USAID**
  Primary delays to Project implementation result from the fact that central GOE policy aims to resolve sector reform issues on a national basis, rather than addressing individual PEA incorporation plans at this stage
- **72 of 107 (67%) Action Plan benchmarks were achieved in Phase I (by mid-1998).**
  Of the 35 benchmarks not completed, about one-fourth resulted from a delay (affecting Luxor) in a decision on utility incorporation by central GOE authorities One-sixth resulted from current national policy constraints on tariff increases South Sinai was the only governorate to complete all its benchmarks during Phase I On the other hand, the other three utilities confronted certain challenging benchmarks not faced by South Sinai as a result of its private sector approach
- **23 of 26 (88%) of conditions precedent (CPs) to construction funding were completed in Phase I, and 100% have been attained presently.**
  Daqahliya and Aswan achieved their CPs during Year 2 and South Sinai by the end of Phase I Luxor was delayed in three CPs by the aforementioned central government constraint
- **Performance-based contracting is an effective mechanism, saving one year in project length.**
  Outcome indicators in the form of benchmarks established for each governorate's action plan provided the means for measuring the success of the institutional strengthening activities The Contractor completed a significant majority of the required Phase I tasks on or in advance of schedule The Evaluation Team believes that the clarity and structure of this performance-based approach—combined with a cost-plus-award-fee incentive mechanism—was a major factor in Phase I success The result is cost savings and increased cost-effectiveness

Financial Viability/Cost Recovery

- **On the current path, full O&M cost recovery will be difficult to attain at all sites by end-of-Project.**
  While preventive maintenance, bill collection, staff productivity, and utility management all indicate significant improvement from pre-Project levels, full cost recovery by late 2003 remains a formidable goal Historical data series show that while revenues are increasing, so are costs The question of how intractable this gap is, even in the event of full autonomy, can be debated The path for combined

water-wastewater utilities in Egypt is even more difficult While estimates vary, cost recovery ratios currently range from about 45% to 70% at Project sites, where calculable The deficit relates significantly to the lack of economic pricing for water/wastewater

- **Extra-project constraints limit the slope of the path to cost recovery.**
  GOE laws that preclude meaningful tariff reform remain a stumbling block, but are being addressed by the parallel USAID-financed Legal and Institutional Reform (LIR) Project On the other hand, GOE legal strictures against personnel adjustment build in an inflexible cost
- **Unaccounted-for-water (UfW) is an important cost-recovery issue within the capacity of the SCP to address as soon as possible.**
  UfW results from system leakages and illegal connections (UfW is water produced but not billed) UfW reduction is the most cost-effective means of increasing system efficiency, as it already contains production costs Project data indicate a weighted Project-wide average of 40% UfW relative to total production (A World Bank study of 75 developing countries yielded an average of 37%, ranging from 17% to 62% More-industrialized countries generally average 15% or less) Since no water production facilities in the Project are metered, however, potential estimation errors also enter an analysis of UfW A recent facility analysis near one Project area indicated that such errors could be high Currently, data are insufficient to identify the parameters of this important issue

Decentralized Management

- **Financial Control has been modernized**
  At each Project site, an operational financial group has been created an trained in payroll, accounting, procurement, billing, and inventory management While the utilities vary in the degree of having established an autonomous cost center, all are on a path to full computerization
- **MIS and databases are available for analysis.**
  Each project site exhibits an operational MIS to support a capability for effective management decision-making Staff are well-trained, enthusiastic, and possess the skills to market MIS services outside the division
- **Collections have been accelerated/improved**
  Computerized invoices and metering programs have inspired more confidence in the billing system Project-wide Customer service centers are responsive to customer inquiries
- **Training is cost-effective and integrated with action plans**
  The flexible and responsive training program, featuring fully equipped training centers at each Project site, underpins improved staff productivity Based primarily on skills development and job-related short courses, costs are well managed Potential exists for marketing services to non-Project sites

Environmental/Public health

- **Delay in the Project health impact evaluation risks missed opportunities for appropriate health education initiatives**
  While meaningful analysis to isolate the health impact of a particular intervention (e g , w/ww services) over a short time period provides significant research challenges, a rigorous approach to the design of effective health education measures complementary to service improvement needs to be engaged Public health analysis can even be useful in identifying potentially adverse impacts of improved access to water (e g , lack of cost-effective management of increased volumes of wastewater)

B PRINCIPAL RECOMMENDATIONS FOR PHASE II

Financial Viability/Cost Recovery

- **Seek GOE co-operation for fast-tracking path to fuller financial viability of PEAs.**
  Seek legal and policy approvals for 1) more authority for PEAs to set tariffs in governorates to recover greater portion of costs and 2) seek GOE approval for controlled, five-year transitionary status A transition plan, (with formal recognition of "transitionary status" by the office of the Prime Minister) would smooth the path for financing shortfalls resulting from PEA's current lack of access to funds formerly provided by MoF Urge the CAOA to expedite approval of organizational structures and to help to finance staff positions and bonuses
- **Seek GOE approvals (MoP, MoF) for capital investment loans to PEAs at concessionary rates.**
  Currently, high interest rates are a constraint on capital financing Under transitionary status, PEAs could be enabled to finance capped amounts of up to LE 2 million for small capital projects (i e rolling stock, small extensions to systems) as zero-interest loans After transition, enable the capital costs for small items to be financed at concessionary rates
- **Fast-track the procurement of bulk metering equipment.**
  The transfer of authority for the provision of bulk meters has delayed the ability of all utilities to measure their influents and effluents accurately Such capacity is essential to maximize operational efficiency (minimize in-plant losses) and correct errors in flow estimation, obtain data for leak detection in mains, and provide data for peak flow estimates, which are necessary for emergency management and capital improvements planning These critical data also have obvious implications on operational cost savings (and therefore cost recovery), and may also be used to estimate large unmetered flows as well as gross illegal connections and other UfW
- **Fast-track the procurement of leak detection equipment.**
  While the ED/CM Project provided leak detection equipment to each utility for pilot operation, this equipment is only effective at depths up to one meter or less and where pressures are significant Their application has thus been largely limited to rehabilitating service connections and locating buried manhole covers In the West District of Mansura, where their use has been most comprehensive (all service connections have been tested at least once), estimates are that only 2 percent of total system leaks have been detected
- **Fast-track service metering program.**
  The service metering program, including installation, testing, and repair, should be expanded formally to include all classes of consumers, in addition to large accounts as currently planned (There is a paucity of operational water meters in all districts) Conservation is a normal result of metering and provides more trust and consumer confidence in billing

Decentralized Management

- **Review and revise staffing plans to concentrate resources on areas of key personnel where shortages currently exist, and urge GOE to expedite approval of new personnel needs.**
  Some sites are overstaffed with low-skilled personnel, while at the same time there is a shortage of key positions such as engineers and accountants The difficulty of obtaining GOE approvals required for new positions remains an obstacle Recommendations include staffing plans focusing on identified needs and proactive lobbying of GOE for expedited approvals Also recommended are innovative approaches, including incentives, which serve to maximize the productivity of under-utilized staff (at least one utility, i e , Mansura, is successfully doing this) Selling marketable skills (e g , MIS, training and laboratory services) to non-Project utilities should also be investigated

- **Fully activate all training committees; expand training program, especially for senior management.**
  Phase I training programs have focused on skills (e g , MIS, cost accounting, leak detection, meter repair) that offer early cost savings for the utility To continue to reap these benefits and increase them, Phase II should leverage those developed skills and expand on them, focusing on advanced training and management training at a greater level than identifiable Phase II projections

Environmental/Public Health

- **Fast-track health impact evaluation and health education plan/implementation.**
  It is highly recommended that data on public health and/or potential public health issues be gathered and evaluated in order to identify and prevent negative health impacts (For example, problems, including health problems, can occur when water services are increased without a timely corresponding increase in wastewater services)
- **Fast-track establishment of an Occupational Health & Safety function at all sites**
  A preventive, proactive plan to establish a safe and healthy work environment has benefits that include not only reduced accidents, but also employee attendance and productivity, as well as improved public perception It is recommended that a OH&S plan be undertaken and implemented as soon as possible, including an initial safety audit that takes into account both hazardous and non-hazardous environments, and assignment of appropriate staff Currently planned Phase II activities do no clearly establish the importance of institutionalizing this function
- **Coordinate with ED/CM Project component on a low-cost waste treatment study under IDS**
  Some future extensions of w/ww services (e g , those to underserved peri-urban areas and villages) will be financed out of utilities' own capital budgets (i e , not included under ED/CM) In these cases, low-cost, technically sound alternatives would serve to mitigate future health and service problems A study of possible alternatives could be integrated with the training plan (Chapter II, Task 3 8)
- **Expand consumer education program.**
  The Phase I action plan for public education should be proactively implemented, with a focus on communicating economic price of service (For example, billing invoices could highlight economic price) Suggestions include replicating seminars for women's groups in all sites and encouraging the formation of single-issue environmental NGOs

ANNEX A

PERSONS INTERVIEWED

USAID	
Peter Argo	Dir , W/WW Sector
Glenn R. Whaley	Chief, Inst Development
Mamdouh Raslan	Prog Officer SCP
Chemonics International	
Dewey L Bryant	COP SCP/ISP
Hesham Sabra	Dpty COP
Fayez Badri	W/WW Engr
Mohamed Mouwad	Head of Training
Chemonics Egypt	
Dr Ahmed Gabber	V Pres
Engr Mohamed Ashmawy	V Pres
Samir Badr El Farghaly	Trainer
Mohamed E Shorbagy	
CDM	
Mr Louis G Marcello	Deputy COP SC ED/CM
Tarek M Selim	Regional Mgr , CDM
GOE/Cairo	
Mohamed Mahmoud El-Serengawy	Chairman, NOPWASD
Mustafa Sharaf	Vice Chairman, NOPWASD, Chairman, Steering Comm , SCP
Engr Mohamed Towfik	U'Sec'y for PEAs, MOH/NOPWASD
Engr Faraq Abdel-Aziz	U'Sec'y Econ Coop w/ USA, M I C
Fathi El Sheikh	Minister of Planning
Nashaat Zaki	Minister of Finance
Aleya El Gedaly	Minister of Housing
S. Sinai	
Mohamed Shebl	Sec Gen , S Sinai Gov
Fayez Ghobrial	Acting W/WW Dept Mgr & Project Coordinator
Engr Ali Mohamed Mahmoud	Tech Chief, W/WW section
Engr Adil Mahruz Dewedar	Mgr Water Section
Engr Hassan Mohamed	Mgr WW Section
Engr Atef Moh Abdou	Head, Sharm W/WW Section
Engr Raqab Mohamed	Head, Nuweiba W/WW Section
Ms Amal Sobhy	Mgr Training Section
Ms Amany Gharib Radwan	MIS Manager
Yasser Ib Amr	Mgr Billing Section
Engr Fayez Badr	Trainer
Dr Mosad Keshk	Environmental Trainer

Samir El Hady	Manager, Planning Dept
Ms Amal Galal	MIS Specialist
Ms/ Nama Mohamed	Database Specialist
Ezed Shehada	Gen Mgr , Public Relations for Governorate, Acting Customer Affairs Section Head

Nuweiba

Gen Shaban	City Council Chief
Maher El Hanafi	Head of Water Branch
Abdel Gawad	WW Branch Head

Sharm El Sheikh

Gen Ezzat Abdel Raouf	Chief, City Council
Ismael Gano	Gen Mgr Of Care Services Co
Engr Atef Mohamed	Project Coordination, Head of W/WW Section
Dr Ahmed Said	Gen Director of S Sinai W/WW Co
Mahmoud Abdel Latif	Assistant to S Sinai, W/WW Co
Engr Talat Ad Eddayim	SDA (Sinai Development Authority) Representative
Engr Fathi Selim	Arab Contractor Representative
Engr Essan El Din Abdul Rehim	InTech Co , Area Manager
Engr Ataya	InTech Co , Assistant to Area Manager

Aswan

Ahmed Sultan	Sec'y Gen
Engr Hassan Sabalek	Chairman, Utility
Engr Michel Agayby	Vice Chairman, Utility
Eng Ahmed Adb El Hameed	Head, Water Dept
Engr Ayoub Kasem	Head, WW Dept
Ms Meruat El Gendy	Training Ctr Head
Gaber El Darab	Financial Director
Ms Safaa Rekabi	MIS Mgr
Ebrihim Said	Water Lab Manager
Ahmed Fouad	Customer Service Head
Aly Mousa	Customer Service
Zaghlol Sedhi	Customer Service
Mohamed Ahmed	Customer Service
Mohamed Mostafa	Nasr City Maintenance Supervisor
Awad El Sheilah	Balance Compact Unit Operator
Mr Gaber	Finance Dept Head
Eng Abd El Naser Mohamed	Daraw Water Treatment Plant Manager
Andrews Yousof	Computer Div Head
Aly Hassan Kemary	Daraw Computer Ctr
Mr Jakob Lund	Danida COP

Kom Ombo

Eng Gamal Eldeen Ahmed	Kom Ombo WTP Manager
Eng Osam Ahmed	CDM Coordinator for Kom Ombo
Taameen Mostala	Kom Ombo Water Lab Chemist

Foyez Parsom	Store Keeper, Kom Ombo
Adel Rashdy	Store Keeper, Kom Ombo
Hassan Abdel Maqd	Chief, Kom Ombo City Council
Mansura	
Fakhl el Dim Khalid	Governor
Gen Ahman Shihab	PEA, Chairman
Engr Amal Mansur	SCP Project Coordinator
Mamdouh Ahmed	Training Center Head
Engr Ibrahim Sentawi	WWTP Manager
Engr Adel Abdul Menhan	O&M Contractor,(Commercial Market Engr Co), WWTP
Ms Soraya Masar	Red Crescent Society Head, Daqahliya
Ms Inayad Sherbini	Red Crescent Assistant
Engr Shawi Mattar	Vice Chairman of PEA for Technical Affairs
Engr Fayoum el Nagar	Mansura Division W Section Manager
Engr Ahmad Oscar	Mansura Division WW Section Manager
Engr Mohammed Reyad	Gen Director for Daqahliya W Section
Engr Ramadam Fateya	New Construction Manager, PEA
Ibrahim Abdo	Water, Lab Chemist
Zina Ghazi	Water, Lab Chemist
Naid Zaki	Water, Lab Chemist
Amira Naker	Water, Lab Chemist
Ali Eisa	Water, Lab Chemist
Mohammed Zini	WW Lab Chemist
Engr Abdul Aziz Ali	WW Pump Station Manager
Ahmed Salah	Metal Workshop Supervisor
Luxor	
Eng Youssef Andrawes	Project Coordinator
Mohamed Abo Zaid	Chairman of Utility, W/WW Dept Chief
Hamdi Alama	Financial Manager
Eng Abdel Hakim	Head of Water Section
Eng Ahmed El Tayeb	Head of W/W Section
Adly Hussain	Water Treatment Plant Mgr
Eng Badry Mohamed	WW Treatment Plant Mgr
Ahmed Yousef	Storekeeper
Hussan Mohamed	WW Lab Mgr
El Dawy Ahmed	Water Meters Workshop Supervisor
Mohamed Abd El Rahmon	Leak Detection Supervisor
Chemist Erian Reyad	Water Lab Manager
Eng Amal Milad	MIS
Abdel Latif El Boghady	Training Mgr
Prof Ahmed Fadel	Trainer
Nasr Abde Rahman	Mgr of Revenue
Sofar Francis	Mgr of Customer Services
Abdel Magid Hamid Mohamed	Financial Administrator
Atyot Amin Kholidy	Salary & Personnel

ANNEX B

Secondary Cities Institutional Development Services Program Contract

The SCP/IDS program contract was signed on 22 August 1995, between USAID and Chemonics International Inc to provide services for management, training, financial analysis, and procurement under USAID Grant No 263-0236 The initial contract provided for two phases corresponding to the activities under the first two stages of the three-stage strategy described in Chapter I A 3 a-c As "substantial progress" in the form of benchmarks -- established as conditions-precedent (CPs) to construction funding -- can be achieved prior to full action plan implementation, stages two and three can actually proceed in parallel The first phase was to cover three years and commenced in August 1995 For each of the cities, it aimed to

- Define the major benchmarks that the GOE and USAID will agree upon as a pre-condition for USAID to release funds
- Achieve the consolidation of w/ww utility activities within a single governorate or city-level organization
- Install and implement a range of utility management systems
- Achieve the actual transfer of physical, financial, and human resources to the utility, for the effective takeover of utility operations

To meet these goals, Phase I comprised 23 specific action-oriented tasks organized under five activities assessment of counterpart organizations, preparation and approval of action plans, implementation of action plan reforms, consumer education, and procurement

The second phase of the contract (GOE implementation of action plans), to cover an estimated five years, aims to achieve the Project's objectives of full O&M cost recovery and quality O&M This phase was to be exercised as an option to the contract depending on progress made in achieving the project benchmarks, contractor performance, and the availability of funds The option was exercised on 30 July 1998 and included an amendment shortening the life of the project by one year (and Phase II to five years), with a completion date of end-FY2003

ANNEX C

Scope of Work for the Interim Evaluation

USAID/Cairo requested that DATEX, Inc provide a six-person team to accomplish the following objectives

- Assess the effectiveness of the SC/IDS # 263-0236 activities,
- Assess to what extent the Project has improved the institutional capabilities of the W/WW authorities in the seven secondary cities,
- Recommend any other actions that may be taken by USAID, the GOE, and the Governorates to achieve project goals and objectives, and
- Measure progress toward attainment of the project outputs

The Scope of Work stipulates that DATEX shall employ the following methodology

- Review the technical reports produced under the project,
- Conduct intensive interviews with the pertinent individuals in Mansura, Aswan, Kom Ombo, Daraw, El Tor, Sharm El Sheikh, Nuweiba, Luxor, NOPWASD, and the Ministry of Housing, and
- Utilize Annex 1 to the SOW as a guide in performing the evaluation (attached as Annex D to this report)

DATEX was requested to respond to the following "key items"

1 Examine the effectiveness of the seven cities with regard to the policy recommendations and action plans developed by the project
2 Delineate problems and constraints that have slowed or prevented the implementation of the recommended work plans presented by the contractor
3 Assess any other constraints within the GOE environment that mitigate against achieving overall project objectives
4 Assess the effectiveness of the two established Public Economic Authorities (PEA) in Aswan and Daqahliya (Mansura) and plans to sustain the w/ww facilities
5 Evaluate the overall effectiveness of the training program in achieving its objective
6 Quantify the progress toward achieving the project outputs
7 Recommend actions that may be taken by USAID and the GOE to achieve project goals and objectives, in the form of tasks to be carried out
8 Prepare an evaluation report providing findings, conclusions, and recommendations

The Interim Evaluation initially had been programmed as a tool that GOE and USAID could employ in the decision process regarding the exercise of the option for Phase II Regional events unassociated with the SCP, however, necessitated a delay in the evaluation by approximately one-year During this time the option was exercised, enabling the Phase I contractor to proceed with Phase II Nevertheless, the GOE and USAID have regarded the evaluation as an opportunity to offer useful input to Phase II content and scheduling

ANNEX D

RESPONSES TO EVALUATION STATEMENT OF WORK "ANNEX 1"

Ratings for all items requested based upon the following scale provided by USAID

Excellent, Very Good, Satisfactory, Substandard, Inferior

1 How do **key stakeholders** [emphasis added] (USAID, client utilities, Ministry of Housing and Public Utilities, Steering Committee) rate

a) Project Progress	b) Contractor Performance	Governorate
Excellent	Excellent	Daqahliya
Excellent	Excellent	Aswan
Very Good	Excellent	Luxor
Satisfactory	Excellent	South Sinai

(See Chapter IV for ratings of Interim Evaluation Team)

2 The contractor was challenged to undertake in Phase I of the project "initial steps of implementation" (Section VII, Contract) of recommended organization and management improvements Please a) rate the Contractor's overall level of commitment and attainment in pursuing this objective, and b) cite specific examples of relevant accomplishments in the areas of organization and staffing, finance and administration, operations and maintenance, MIS, and training

Overall level of commitment and attainment

The contractor, Chemonics International, appeared to have a strong level of commitment toward achieving the SOW goals under difficult circumstances Considering the relatively low level of skills, computer hardware/software availability, and the lack of quality management perceptions at each utility at the project inception, they have implemented the project very effectively At mid-project almost all goals have been achieved The staffs available have displayed high morale and an extraordinary level of interest and commitment (e g , toward acquiring and utilizing more advanced computer HW/SW skills and techniques) The staff of CI displayed a strong interest in continuing this focus during the second half of the contract

Examples of specific interventions and accomplishments in the areas of

Organization and Staffing

- Organization and staffing plans prepared in all project locations
- Organization and staffing plans approved by all Governors and/or Boards of Directors
- Headquarter level job descriptions, including staff norms produced
- Excess staff reduced or adjusted in some locations (such as Aswan, about 10%, and Daqahliya, about 3% in addition to 6% on leave without pay)
- Personnel policies and regulations are being prepared

- Internal training policies implemented and training administration procedures prepared
- Training centers operational in all locations
- Training courses conducted to support utility development

Finance and Administration

- Operation and maintenance (O&M) budgets (or shadow budgets) for FY 97/98 and FY 98/99 developed in all locations
- Contracting and purchasing regulations developed in all locations
- Training in unified accounting system completed in all locations
- Cost centers for Mansura and Kom Ombo Divisions (Aswan) established
- Registration of assets completed for all project sites

Operations and Maintenance

- O&M planning and budgeting completed in all locations
- O&M record-keeping and reporting implemented in all locations
- Performance improvement programs initiated in all locations for water meter repair, leak detection, sewer cleaning, laboratory procedures, w/ww preventive maintenance, operation, and record-keeping
- Feasibility studies produced for desalination plant in South Sinai
- Contract management manual prepared and training in sewer contracting improvement delivered in South Sinai

Management Information System

- Customer accounts automated in all locations
- Personnel and payroll automated in Kom Ombo and Mansura
- Computerized information centers established in all locations

Training

- Project training procedures established
- Training Centers established and organizational structure implemented in all locations
- Training in all areas (O&M Engineering, Finance & Administration, MIS, Planning & Monitoring, Training) delivered in all locations
- Using Project-developed evaluation criteria, significant performance improvement achieved in management skills, finance, O&M, stores management, customer education

3 Are their any significant constraints controlling or impeding project progress? **Yes.**

If yes, please list in descending order of importance and recommend measures to overcome these constraints

- The Presidential Decrees, generally including 281/1995, and other legal authorities present many constraints impeding the progress of project programs, such as
  - Salaries and incentives are tied to the standard civil service scale

  - Approval of the CAOA is necessary in any study for organization, staffing, and job classification, a difficult process requiring hard negotiations and significant time, in turn affecting personnel availability
  - Ministry of Finance approval of funding for new staff positions
  - Approval of the Cabinet is required for raising domestic tariffs
  - Limited authorization is given in dealing with personnel management, which is controlled by Law 47/1978
- Shortages exist of specialized personnel (especially in South Sinai and Upper Egypt) with appropriate qualifications to fill management and technical positions in the organizational structure
- Difficulties remain in identifying sources needed for capital investment and covering the deficit between revenues and operating costs

To overcome these constraints, certain measures should be addressed to the GOE

- Allow for a transition period of approximately five years from the establishment of a nominally autonomous utility to complete the management system
- Give more freedom to w/ww utilities to overcome the constraints of Laws 47 and 26 (e g , enabling utilities to make personnel changes and adjust salaries with incentives and bonuses)
- Fund costs needed for equipment and capital investment at concessionary rates
- Urge the CAOA to expedite approval of the organizational structure and staffing and to recommend strongly to the MoF to finance new staff positions
- Utilize existing staff more effectively For example, the initial design plan required an MIS staff of four, plus a supervisor at all locations This approach ignored the discrepancy in population and connections between locations, (e g , population of 800,000 and 163,000 connections at Mansura compared to a population of 14,000 and 1,800 connections in South Sinai) On a comparative basis, a significantly reduced staff size of two in South Sinai for the MIS, accounting, billing, and data analysis group would be more than adequate and reduce the limitations on attracting suitable or qualified staff Similar scrutiny should be provided for other locations in Upper Egypt (e g , Kom Ombo, where some eight window clerks at the Customer Service Center were observed attending to a daily average of less than 50 customers) In three of four cases, there is an excess of staff at the utilities due to normal operational, bureaucratic, and cultural norms It would be inappropriate to introduce excessive computer staff as an innovative procedure A cursory inquiry indicated that, in general, Project MIS staff were occupied on a productive basis only 20% of the time, spending the remainder on training This would indicate overstaffing, or inadequate management understanding of the capabilities and potential for a utility's resources One option is to encourage the MIS staff to justify their existence by selling their capabilities to other groups in or outside the utility

4 The Contractor has stated in various documents (e g Technical Proposal and Annual Work Plans) that the consultant team would employ several key strategies (e g "leveraging other projects", "using pre-developed/pre-tested management systems applications software", "field testing implementation strategies in one location and replicating successes elsewhere", and "minimizing training course development costs") in order to optimize the efficiency and effectiveness of the consulting/technical assistance effort Has this been done? **Yes**

If "Yes", please cite specific examples

Leveraging other projects

- Sewer cleaning program/training (Cairo GOSD)
- Lawayih (by-law regulation) (AWGA)
- Meter repair workshop (Canal Cities Project/Port Said)
- Customer education (Canal Cities Project)
- Computer software programs (AWGA)
- Training material (comprehensive database of training materials from all USAID w/ww LD projects (4/96)
- Staff Training in Aswan PEA (collaboration with DANIDA-funded systems replication and training in Aswan and Edfu Divisions)
- Customer service (Cairo Water Customer Service Center)
- Information exchange, revenue enhancement, strategic planning (IWACO)
- Regulation (ARENTO - Cairo Water/Egyptian Electricity Authority)
- Legislation, regulation (LIR)

Using pre-developed/pre-tested management systems applications software

The MIS division is primarily designed to collect and present data and information for decision making by the management group The data collection process is a standard procedure utilizing the MS Access program for systematically collecting and presenting data in tabular form Graphics are a more visual method of data display for management The training in graphic display is based on MS Excel It appears, however, that the training and data display are only vertical bar or three-dimensional pie charts The 3-d pie charts are not effective and in several situations are deceptive On the other hand, training in MS PowerPoint could be helpful in presenting data display and verbal information in summary form ArabSoft has developed both programs in Arab/English versions Additional strategic planning software and a Framework program for developing budget projections should be provided for each location

Field testing implementation strategies in one location and replicating successes elsewhere

- Preventive maintenance (Pilot in Luxor, customization and replication to Kom Ombo, Daraw)
- Stores (One store in Kom Ombo WTP reorganized via Contractor assistance, a second organized by same Kom Ombo staff without Contractor assistance)
- Leak detection (Mansura technician now monitoring South Sinai staff)
- Sewer cleaning (Aswan PEA application to Aswan City Division)
- General sequential work across governorates/cities in most task areas

Minimizing training course development costs

- Appropriate in-country training course materials gathered and modified to suit Project requirements
- Collection of existing operating equipment manuals worldwide, as needed
- Minimal procurement of computer equipment for the Training Centers, relying on on-the-job training in MIS centers

5 Has the use of a performance based contract contributed to effective execution of the project? **Yes**

If Yes, what, if any, improvements could/should be made in the contracting mode in Phase II?

Phase II has already commenced Chapter 2 discusses the performance of the contractor in completing the tasks specified in the SOW The contractor completed the great majority of these tasks on or in advance of schedule Outcome indicators in the form of benchmarks established for each governorate's action plan provided the means for measuring the success of the institutional strengthening activities At the end of Phase I, 70 of 107 (65%) total action plan benchmarks had been achieved, which included 23 of 26 (88%) "key indicators" selected as precedent conditions (CPs) required prior to funding construction (Luxor, due to factors beyond the control of the contractor, was the only Project site not to fulfill 100% of its CPs These remaining three CPs were met by the time of the interim evaluation in April 1999) In the opinion of the evaluation team, the clarity and structure of this performance-based approach – combined with a cost-plus-award-fee incentive mechanism -- was a major factor in Phase I success, which further enabled the shortening of the contract period by one full year Such action therefore has led to cost savings and increased cost-effectiveness Semi-annual assessment is adequate No improvements to the contracting mode would be recommended

6 The Statement of Work (I C 2) charges the project with exploring "an array of differing institutional arrangements" to achieve project objectives Please a) assess, and b) document the creativity of the Contractor in identifying and promoting diversity in institutional forms

Evaluation **Excellent**

Documentation/Explanation

- During the assessment phase, the project examined a range of available (legal) frameworks for utility incorporation, including public company and public authority, as well as strategies to improve service contracting At the time of assessment, the GOE lacked both the willingness and the capacity of PSP in infrastructure finance
- The project convened widely attended (power, telecom, and w/ww sectors) seminar on regulation with technical experts from USA, World Bank, USAID, and GOE to review and discuss regulatory framework world-wide and applicability in Egypt
- As GOE interest in PSP was stimulated by development in power, telecom, and transport sectors, the Project pioneered preliminary studies as well as plans for PSP project implementation Project level workshop hosted in June 1997, Luxor level workshop in March 1998 The latter led to recommendations from City Council to proceed with formulating a comprehensive institutional development package
- Service contracting specifications and terms of contract have been improved to increase contractor accountability and assume open and competitive tendering

7 Considerable efforts have been placed on exploring/promoting private sector participation in a variety of forms Please assess the effectiveness of these efforts

Evaluation **Very Good**

Documentation/Explanation

- Example corporate plan developed (December 1996), including educational and introductory material on PSP
- Detailed preliminary study developed (May 1997) on the feasibility of PSP for Luxor water utility
- Intensive three-day conference (June 1997) hosted in Cairo on PSP attended by USAID, Minister of Housing, Governors, all management staff of w/ww industry in Egypt Considered as the first national conference on PSP in w/ww
- Conference on "Concession Management for Luxor w/ww Utility" (March 1998) attended by representatives of the popular councils, tourist industry, private sector, and others Endorsement of a "concession" management received and formal request to authorize Luxor to proceed presented to the Prime Minister
- Detailed preliminary Legal and Financial Study for a concession management for Luxor (June 1998)

8 How do you rate a) the quality and usefulness of project outputs/deliverables, b) the quality and effectiveness of the training program, and c) the level, quality and responsiveness of technical assistance rendered?

Quality and usefulness of outputs/deliverables **Excellent**

Quality and effectiveness of training activities/events **Very Good**

Level, quality and responsiveness of technical assistance rendered **Very Good**

Comments (including suggestions and priorities for enhancing and/or expanding technical assistance, training and commodity procurement)

- Bulk metering of all facilities should be the first procurement priority
- Provide wider range of technical assistance and training to HQ staff in planning and management systems to ensure sustainability
- Expand technical assistance in water process control
- Provide more input in the technical and financial areas, such as enhancement of leak detection and waste control, concentrating on plans, rehabilitation of networks, installation of PVC pipes, and improving metering program (repairs and calibration)
- Enhance and upgrade automation of stores, plant record keeping, and preventive maintenance to improve performance of facilities
- Expand on-the-job training model

9. Has the Contractor established and maintained effective working relationships with USAID? **Yes** Has the Contractor established and maintained effective working relationships with Counterpart staff? **Yes** Has the Contractor established and maintained effective working relationships with key Central Government Agencies? **Yes**

- Working relationships between the Contractor and USAID/Cairo and GOE counterpart staff are excellent
- The Contractor has succeeded in achieving the following with all direct partners
  - Effective communications
  - Conviction in the objectives of the program
  - Smooth, cooperative relations with all parties
  - Responsiveness
  - Positive impact on counterpart staff morale and procedures

10 Has the project had demonstrable, positive impact? **Yes**

If yes, please a) list specific examples of measurable progress made/achievements recorded, and b) rate on a scale of 1-5 those interventions' effectiveness in contributing to enduring gains (with 1 representing little or no likelihood that the progress made can be sustained and 5 representing near certainty that the progress made will facilitate sustainability)

The following represents Evaluation Team-average assessment of Project-wide achievements

Example(s)	Rating(s)
Management Systems	
• Customer service centers	4
• Staffing plans	3
• Computerized billing	4
• By-laws	4
• Personnel and payroll	4
• Stores/inventory	4
• Commercial accounting	4
Planning & Management	
• Organization/staffing plans	4
• Strategic planning	3
• Program planning	4
• Management planning	4
Training	
• Training centers	4
• Training plans	4
• Training courses	5
Operation & Maintenance	
• O&M budgeting	5
• UFW reduction program	3
• Sewer cleaning	4
• Metering program	3
• Power cost reduction	3

11 In view of the constraints on PEA administrative autonomy as set out in PD281, assess the creativity of the Contractor in taking advantage of the ambiguities and room to maneuver in basic regulations to maximize the PEAs' capacities for decentralized management Should any limitations be placed on the contractor in exploring the limits of GOE regulations?

The Contractor provided technical assistance to the Project-wide Steering Committee to enhance PEA capacity for decentralized management under PD281 in the following ways

- Provision of adequate Bab II resources to the new authorities
- Provision of adequate Bab III resources to the new authorities
- Raising central-level awareness of the contradictions between the PEAs' overall mission and certain articles in PD281
- Review and endorsement of new PEA internal regulations (*lawayih*), including customer relations policies and regulations
- Transfer of resources, including physical facilities
- Mobilization of local CAOA offices and governorates to lobby for greater decentralization in original organizational blueprints for the PEAs

The Contractor has exhibited an exemplary degree of sensitivity in working with counterpart organizations and should not be limited in exploring creative ways to work within the framework of existing GOE regulations

12 Assess the organization and staffing plans and companion management systems developed for SCRP utilities Describe progress achieved to date in implementing these recommended improvements

Organization and staffing plans covering most essential institutional elements have been completed for each utility All plans, however, lack a dedicated Environmental Health and Safety Unit/Section at the Headquarters level (Mansura Division maintains a small health and safety sub-unit in its Workshop Section) Automated management systems are operational at all project sites at differing levels of sophistication According to the plans, implementation of staff placement is progressing in Kom Ombo and Mansura Divisions Performance in Luxor and South Sinai proceeds more slowly (3/99 and 4/99, respectively), and stronger efforts are required by the Luxor City Council and the Governorate of South Sinai

13 OMITTED FROM SCOPE OF WORK AS PER USAID APPROVAL

14 Would it be cost effective to transfer all or part of the IDS/SCRP training program/activities to the Mission-wide DTII Training Program? What, if any, would be the down-side effects of such a move?

Field observations by the evaluation team confirmed that SCP training is closely tied to the Project Implementation Plan Training is based on site-specific Needs Assessment and addresses the requirements of each site individually, as well as Project-wide Training is also tied to the on-going technical assistance activities It is more efficient, therefore, that training and technical assistance be

managed, directed, and monitored at sites by the Contractor The approximate cost of such training is 200 LE per trainee per course

The potential for off-shore (US or third-country) SCP management training was explored with DTII staff While DTII maintains an impressive resource base for specialized US training, it is unclear how DTII could address specific SCP needs without an intimate link to the Project On the other hand, while the Project to date has only provided one off-shore training module, the exercise was designed with an informed and SCP-experienced perspective, thus enhancing cost-effectiveness If training -- which is a major element in achieving SCP objectives -- were transferred to DTII, the evaluation team believes that technical assistance effectiveness would suffer and objectives could not be achieved as planned

15 Assess the efficacy of the Contractor's recommended Phase II strategy and approach (as detailed in the Phase II Planning Document), and offer suggestions, if any, for improvements or new initiatives which should be undertaken in the future

The Phase II planning strategy is sound and logically structured Progress and concluding tasks and programs specified in the plan would ultimately lead to sustainability

Examples of types of initiatives to expand on geographically or intensively include the following

- Gradual reduction of staff size in Aswan and Mansura
- W/WW tariff increase in South Sinai for all non-domestic and non-governmental user classes
- Two-year record of closing the gap between costs and revenues
- Upgrading staff skills and reinforcing the management capabilities of senior and middle management
- Implementation of improved record keeping and reporting system
- Fixed assets registers automated after completion of fixed assets inventories
- Fast-track to Year 6 (from Year 8) planned cost recovery study

16 OMITTED FROM SCOPE OF WORK AS PER USAID APPROVAL

17 What are the principal "lessons learned" in Phase I of the project? How can they be applied in Phase II? Please list and explain

Lessons learned

- There is a great need for increased management training for several utility organizations Skill sets that demonstrate strong and decisive management within a competitive environment will need to be developed, a feature not common to utility administration nationwide The innovative thought process for decision making under uncertainty is difficult to convey Study tours and training at an equivalent U S water utility would help to elucidate this problem
- At the same time, the traditional management cycle (Plan – Execute – Review and Evaluate – Reprogram) is well understood by Egyptian professionals and effective in producing results, especially in the private sector
- Strategic planning, follow-on program planning, and management review are strongly required and

should be training goals

- To be effective in the longer run, utility management will be required to curtail operating and maintenance expenses and reduce staff, a difficult decision under the best of circumstances
- Continuous increase in transfer of authority and responsibility to counterpart staff is crucial to optimizing impact and achieving institutional sustainability
- There is a need for governorate headquarters authorities to plan and transfer skills learned in Project-supported divisions to other divisions
- The mechanics of accounting, database collection, and training for a qualified staff to produce data reports for internal evaluation of operations has been effectively transferred to each utility

ANNEX E

COMPLETE LIST OF RECOMMENDATIONS

Chapter II.

Task 1.3 Automation of Management Systems

- Provide technical assistance (TA) early in Phase II to assess the current and future benefits and feasibility of inter-departmental data-sharing systems (Automation of Management Systems)

Task 3.3. Inventory Control and Store Management

- Encourage the utilities to request the Ministry of Finance to accept their new systems of record-keeping so that the storekeepers can eliminate the Ministry's requirement to maintain a separate ledger

Task 3.4. Management Systems

- Expand the commitment to use MIS information (reports, tables, charts, etc) for management decision-making
- Explore ways in which to make MIS information more accessible and useful for other (non-senior management) staff and departments who require current and reliable data

Task 3.8. Internal Monitoring and Evaluation (including Health Impact data)

- Fast-track the design and implementation of the health impact component

Task 4. Consumer Education Program

- Replicate seminars for women's groups in Aswan, Luxor and South Sinai
- Encourage the formation of single-issue "environmental" non-governmental organizations (NGOs) in project cities

Task 5. Procurement of Project Equipment and Materials

- The Contractor and USAID should maintain close coordination to provide timely procurement of equipment Flexibility should be maintained to take advantage of rapidly changing technologies, as well as in changing/adding required equipment that may be identified on a case-by-case basis as a result of Project achievement

Chapter III.

A Effectiveness of the seven cities

MIS

- Encourage the MIS team to share their data, information and analysis skills and service internally with other units at the utility The availability of a functioning MIS unit can facilitate making investment, financial, and operating decisions for every division

Billing/Collections

- Initiate a test cast to determine if hand-held meter readers with automatic invoicing capabilities improve operations One or two sample hand calculators could be borrowed for a district in Mansura in order to

compare the results with the current standard manual meter reading and collection system procedure The test devices could be purchased if the results are positive
- Expand the location and hours of the Customer Service centers to permit direct payment by a wider range of customers who can not pay the collectors directly
- Conduct a study to identify characteristics of payments in arrears

Inventory Control/Stores Management
- The staged approach to automation illustrated by the Cardex system should serve as a model for non-SCP-assisted divisions
- Procurement should be coordinated with this phasing so as to ensure the benefit of rapid marketplace innovations (e g , rapid changes in computer hardware and software standards should be considered when detailing procurement specifications)
- The stores and stockpiles should be established on an operational database as soon as feasible for improved control and planning

O&M
- The Contractor should maintain the same level of responsiveness to the service delivery needs of the cities in Phase II as they did in Phase I

Customer Services
- Accelerate replication of successful Kom Ombo Customer Service Center in other Project cities
- Evaluate use of Customer Service Center in Kom Ombo for potential savings in staff use (Several windows were observed to be under-used during the two visits to the Center)
- Alternative radio and/or telephonic communications systems should be compared and provided to all project locations to facilitate customer service, collections and O&M

B Problems and Constraints

Bulk metering
- The Contractor and USAID should coordinate closely with CDM to speed the bulk meter installations all sites
- Service meters and the establishment of meter repair facilities should be facilitated for all unequipped sites as soon as possible

Leak detection
- The leak detection equipment scheduled for Phase II procurement should be fast-tracked for delivery and use, beginning in Mansura

South Sinai
- The Contractor should provide additional training in contracting and contract supervision, particularly for system operation and maintenance
- As stated in an earlier recommendation, establish meter repair facilities and provide/install service meters in South Sinai upon Phase II procurement

Luxor
- A central physical structure consolidating all principal functions of the Luxor utility should be provided as soon as possible

Staffing

- Review and revise staffing plans to concentrate resources on areas of key personnel where shortages currently exist
- Proactively urge the GOE to expedite approval of new positions and financing in key personnel areas
- Explore imaginative incentive programs to attract qualified personnel
- Seek ways to maximize productivity of under-utilized staff in creative ways within the organization (at least one utility, Mansura, is successfully doing this), or even outside the organization, such as selling marketable skills (e g , MIS, training and laboratory services) to non-Project utilities

C Constraints within the GOE environment

Full financial viability

- Seek legal and policy approvals for more authority to set tariffs in governorates to recover greater portion of costs
- Seek GOE approval for a controlled, five-year transitionary status from the time of the establishment of a nominally autonomous utility
- Each PEA should develop and submit to the appropriate authorities a formal transition plan that provides an outline of its proposed path for achieving full O&M cost recovery
- Seek GOE approvals (MoP, MoF, and PM) for capital investment grants and/or loans (at concessionary rates) to PEAs Also consider zero interest loans for capital investment during the transitionary period Transitional supplemental funding should be provided to PEAs prior to full cost recovery attainment

Shortages of specialized personnel

- Give more freedom to w/ww utilities to overcome the constraints of Laws 47 and 26 (e g , enabling utilities to make personnel changes and adjust salaries with incentives and bonuses)
- Urge the CAOA to expedite approval of the organizational structure and to help to finance staff positions and bonuses
- It is suggested that the staff size be limited and reduced in South Sinai to only two each at the MIS, accounting, billing and data analysis groups Similar scrutiny should be provided for other locations in Upper Egypt

Institutional changeover

- Urge the MoHPU to assist in the turnover of the WWTP in Mansura
- Better coordination between ED/CM project (or NOPWASD) and the IDS project would provide improved training, both during construction of new facilities and first year of operation of new facilities
- The Contractor should provide the necessary extra level-of-effort to assure the continuous O&M of the new Fatera WTP (Kom Ombo) in the Aswan Group upon turn over from NOPWASD Training budgets for additional operators should also be made available to the Aswan Group Aswan PEA and NOPWASD should work cooperatively to expedite facilities turnover

Delays in MoF disbursements

- Ministry of Finance should be encouraged to show more flexibility to the needs of this important Project The LIR task order output should help to solve this problem for the utilities

D. Effectiveness of PEAs in Aswan and Daqahliya

- Aswan and Daqahliya should host workshops for non SCP-assisted PEAs These should include Beni Suef, Fayoum, and Minya, all soon to receive support in the Middle Egypt project
- The IDS program should horizontally transfer imaginative sustainability proposals among all Project utilities, including non-PEA utilities
- Because the Luxor and South Sinai utilities (non-PEA entities) have only recently been established, USAID should re-evaluate their progress within one to two years (i e , 2000 or 2001)

E Training

- Extend the Project training model, in which training is closely integrated with implementation and highly flexible in meeting specific utility development needs This extension should account for attrition It could also take the form of more intensive training of trainers (TOT) component, which might then provide the opportunity for Project utilities to market training services to non-project utilities that develop autonomy strategies
- Provide more senior management training, considering the planned Phase II intensity as a minimum level
- Add a level of training assessment scheduled for 6-12 months from the course date
- To complete the integration of training efforts within the utility, the Training Committee must become operational in Aswan, Luxor, and Daqahliya While presently the Contractor has suggested that this Committee meet semi-annually, it may be more beneficial to meet quarterly to correspond with the quarterly cycle of Annual Training Plan reviews
- Explore opportunities to invite private sector and other regional utilities to provide trainees on a fee-basis to improve economic sustainability, as is being proposed by the training manager in South Sinai
- Off-shore training experiences, including twinning-like arrangements, if deemed useful, should be postponed to the last years of the Project This would assure the most efficient use of managers' time through continued in-country training provided by the high-achieving, integrated Contractor-counterpart training needs assessment system
- The Contractor should explore imaginative solutions to the pressing need of the governorate-based utilities to provide training to their non-Project Divisions For this purpose, once DANIDA's parallel project in Edfu and Aswan cities is re-started, lessons can be learned from training efficiencies among different Divisions

ANNEX F

1998 Comparison of Secondary Cities on SO6 Decentralized Management Goal

City	Cost Recovery			Personnel Policy	Budget by Chart of Accts	Revenue Retention	**Total Score Improved Decent. Mgmt**
	CDM	Evaluation Team	Chemonics				
Aswan	60%	53%		30	100	75	**68**
Mansura	71%	69%	67$	40	100	75	**72**
Luxor	62%	45%	67%	0	0	0	**0**
South Sinai	100%		19%	0	0	0	**0**
Port Said	26%			0	0	0	**0**
Suez	26%			0	0	0	**0**
Ismailia	22%			0	0	0	**0**
Beni Suef	63%			40	50	100	**63**
Fayoum	50%			40	50	100	**63**
Minia	58%			30	37 5	100	**56**

Data from "FY 1998 R4 Results Reporting for Egypt's Water and Wastewater Sector Strategic Objective 6"20 February 1999
DATEX Evaluation Team

ANNEX G

Comparison of Financial Control Systems at SCP Sites

City	MIS	Computer billing	Special accounts	Budgeting	Cost accounting
El-Tor (South Sinai)	Very good	100% from November 1998	No (through governorate accounts) Segregation for shadow accounts will start in 1999	Training for estimation only, initiating estimation through the governorate budget	No
Luxor	Very good	100% for entire city	No (through the city accounts) Segregation for shadow accounts will start in 1999	Training, began estimating this year through the city budget	No
Kom Ombo**	Very good	100% for Kom Ombo	Yes, unified accounts	Yes, two years ago	Yes, one year ago, manual
Draw**	Yes (Kom Ombo division)	Preparing, data entry will begin July '99	Yes	Yes	No
Nasr**	Yes (Kom Ombo division)	No, data entry at Kom Ombo site	Yes	Yes	Yes
Mansura (Daqahliya)	Very good	60% of the city, 40% manual, will be computerized fully end 1999	Yes, unified accounts, Yes, also two years ago	Yes, two years ago	Yes, one year ago, manual

**Special accounts, budgeting and cost accounts were prepared for the division

ANNEX H

ECONOMIC PERSPECTIVES FOR SCP

BACKGROUND

The Project Paper for the Secondary Cities Project includes a strategy to produce plans to achieve cost recovery and autonomy for the local entities responsible for water and wastewater systems The achievement of full institutional autonomy would require new initiatives, including legal authority, tariff increases, a new rate structure designed for complete cost recovery, full revenue retention by the utility, adjustment of the labor requirements and competitive procurement procedures The design and implementation of a new sustainable utility model will be an essential product of this project The positive example of an autonomous utility will encourage other to follow the procedure The penultimate aim of autonomy would animate privatization and accelerate independent financial investment in the entity This annex is designed to focus on the financial and economic aspects of the program required to implement autonomy and suggestions to expedite the procedure

PROCESS

The aim of achieving self-sustainability for the water utility sector will require a mixture of increased revenue and reduced costs A number of viable approaches could include

- An effective leak detection program The gap between water produced and water consumed by the customers at each connection is considered "Unaccounted for Water" (UfW) Since all consumers pay total water produced, the least cost incremental water is to reduce UfW and increase the efficiency of the system The levels of UfW are currently high and a systematic program to substantially reduce this level should be initiated at the highest priority level The UfW could be high due to inaccurate data No water production facility in the project is metered Estimates of water produced are based on the original plant design capacity per hour multiplied by the operating hours Without actual levels of water production the estimates of leakage could be excessive It is suggested that meters be procured and installed at the production facilities with the initial priority for the high consuming, high UfW citY of Mansura
- An effective water meter management program should be implemented to insure the quantities of water consumed are valid
- Power reduction program Electric power is the largest O&M expense and a systematic approach to increase energy efficiency should be initiated
- Ability to pay survey based on the GDP of residential consumers
- Willingness to pay provided by a survey of alternative water supplies or wastewater removal This would include the cost of bottled water, or tanker levels and the removal of wastewater, which both would be substantially more than the utility option

PRIVATE SECTOR

The increased involvement of the private sector is a desirable option for the future devolution of water and wastewater sector A strong private sector could help utilities develop in two important advantages The first is by providing innovative management concepts and operations and as a source of funds for new or expanded infrastructure The second approach would be to provide support to sector institutions as suppliers of equipment and materials and active knowledge of the competitive market A desirable aim of this program is to create a framework or model for a water utility that would be an attractive investment for the private sector For a private investor to become involved in the utility, they must feel confident that

local and national conditions, policies and laws would be designed to permit the investor to meet the obligations and insure a self sustaining entity, in addition to recovery of the investment costs

Cost Recovery

Egypt, in an effort to maintain low cost rates for water, an essential commodity, has in the past followed a policy of subsidizing water and wastewater from general budget revenues The principal justification for subsidies was that some of the population was so poor that rates reflecting full cost recovery would deny them access to a basic need However, a closer analysis of this argument indicates that the subsidy policy tends to be contrary to the needs of the under-served poor, and may be the main reason they are denied complete access to water and wastewater services The dependence on investments for water infrastructure exclusively on government subsidies makes the level of investment dependent on the ability and willingness of the Government or international aid agency to invest in water systems in the country Budget constraints or a shift in sector or country priorities can slow down or curtail water sector investments that cannot secure alternative resources Tariff rates not designed to meet actual cost recovery levels result in subsidizing the economically better off population, which is normally well-served Low tariff levels and excessive reliance on government subsidies provide no incentives for the utility to be more efficient or make cost effective use of the available resources Low tariff rates do not allow for natural water demand management In many locations, the poorest residents pay an excessive portion of income for water and may be required to purchase water from private vendors, at exorbitant prices, in addition to bearing the cost of increased health risks and inconvenience in daily activities In many locations the poor would willingly pay a higher price, reflecting the true cost of water, for a dependable supply of an essential, life-supporting commodity

Since present rate levels are generally below financial or economic cost levels, an appropriate strategy would be to first increase rates to total financial and later to economic recovery cost levels Financial cost recovery, in this context, means the water and wastewater utility would generate income from users fees sufficient to cover operation, maintenance and administrative costs In addition, the financing of capital investments would be accomplished by obtaining loans, and servicing the loans

The most crucial element on the road to full cost recovery rates is the Government of Egypt's commitment to eliminating direct or indirect subsidies provided by the national or local governments Interrupting the flow of easy money from the government can force the local Government or utility, to improve the cost effectiveness and efficiency of their operations The elimination of subsidies must be gradually phased in, and should proceed at different speeds at each of the SCP locations However, the government commitment to a clear and transparent plan for subsidy elimination is important, so that each utility can take measures to prepare for decreasing subsidies by increasing rates gradually and building a more efficient institutional structure

Tariff Schedule

An appropriately designed tariff schedule can be an effective mechanism for simultaneously providing funds for operating and maintaining the existing water and wastewater system while providing funds for expanding the infrastructure, or replacing essential components A tariff design model can assist in determining guidelines for water supply schedules for residential, commercial, industrial and agriculture use of water and wastewater tariffs for utilities

A review of tariff related topics indicated the following suggestions

- A self financing tariff system is essential for independence It is essential that each utility, adopt the policy and program to effectively implement the requirement that tariff rates be designed to cover the total costs recovery of the operating, maintenance and capital investment costs for existing and new facilities
- Commercial independence is required for new investment facilities

CONCLUSION

The effective economic approach is to assure that the consumer perceives the price of water/wastewater, or any commodity, reflects the actual cost Any product, including water, that is underpriced, is overconsumed The price sends a signal to the consumer of the real cost to the individual, and society for collecting, transporting, distributing and disposing of water According to WHO, the level for a mid-development society is 75 liters per capita per day of water, while only 5 lcd is required to sustain life The current levels for water consumption for the SCP is from 71 to 125 lcd, indicative of a mid-development comfort range The consumer perceives the price of water consumed from the periodic invoice, however, the current tariff billing level for residential consumers are highly subsidized It is suggested that future invoices present two tariff levels, one the actual cost of providing water, without a subsidy, and the second indicating the current tariff level A note indicating the gap in payments between the cost and price of the invoice is provided as a social benefit to residential consumers, and could assist in improving the public perceptions of the intrinsic value of clean water

ANNEX I

STRENGTHENED UTILITY SAFETY PROGRAM

The Need

Occupational health and safety is a corporate concept that has been embraced worldwide for over two decades It fulfills the corporate need to show its employees - its corporate "family" members - that it cares about their health and well-being while in their corporate "home " Although these efforts add capital costs to corporate operations, the benefits derived from lowered absenteeism, lowered medical compensation, and a sense of well-being in a safe work environment have proven these programs' cost/benefit value to the corporation's bottom line

During Phase I of the SC/IS, several groups of young students have toured the offices and facilities of the Project sites, as part of the ongoing Consumer Awareness campaigns These activities will certainly increase greatly and the Consumer Awareness Program becomes fully active in the near future Therefore, beyond concern for the safety of corporate employees, the Project must make sure that safety programs include the safety of visitors as well The consequences of accidents involving visitors can irreparably damage the image of the utility in the eyes of consumers, setting back any gains of Consumer Awareness Programs

During Phase I, the Contractor-inspired organizational charts included only one Safety Officer in each Division, and none in the utility headquarters Safety issues were included as an integral part of all training courses, as applicable On the other hand, counterpart managers frequently emphasized their desire for the Project to procure safety equipment to protect their employees from on-the-job hazards well-known by them in the course of facilities operations and maintenance activities (About 10 years ago in Luxor, two laborers died from poisonous gases while performing sewerage system maintenance)

Cursory Evaluation of Phase II Program Plan

The contractor has responded to these concerns by developing a Program Plan for improving occupational health and safety, and by prioritizing safety equipment in Phase II procurement The Program Plan is scheduled for start-up in July 1999 While Safety Units have been proposed for both the headquarters and division levels, the principal focus of this program seems to respond only to the safety needs of workers exposed to potentially hazardous operations This Plan only responds to the most obvious definition of "occupational health and safety," as expressed by the concerns of local counterparts (The Program Plan for these activities seems to be comprehensive)

Modern corporate cultures embrace the concept of occupational health and safety to the entire corporate environment, which includes nominally non-hazardous environments as well Examples of safety concerns in "non-hazardous" environments are building structural integrity, electrical wiring, emergency exits and procedures, chemical cleaning materials, sanitary conditions, and open pathways

Recommendation

The Contractor should reorganize the staffing of the Occupational Health and Safety Program Plan as follows

- At the utility headquarters, an overall Corporate Safety Director under the Utility Chairman, but above all line department managers, responsible for all utility-wide safety programs
- At the Division level, a Safety Unit Manager directly under the Water Section Manager and the Wastewater Section Manager (2 total), responsible for safety programs in "hazardous environments" in the Water and Wastewater Sections, respectively
- At both the headquarters and Division levels, a Safety Unit Manager directly under the Administration Department Chief (one at headquarters plus one for each Division), responsible for safety programs in "non-hazardous" environments
- Designated Safety Officers at each "hazardous" facility (not a full-time responsibility), responsible for routine monitoring of facility safety standard operating procedures

Initially, a "safety audit" should by performed by a contracted specialist for each utility Conducted annually, this audit should include both "hazardous" and "non-hazardous" environments The Contractor should supply this audit through its provision for short-term technical assistance, followed by assistance to Project counterparts in contracting for this service locally for sustainability, as applicable

Training and technical assistance should be added to facilitate the sustainability of the above Program Plan additions, as needed

٨ استمرار تنشيط التدريب وخاصة للادارة العليا حيث ان المرحلة الاولى من المشروع ركزت على تنمية المهارات للعاملين ،وعلى ان يتم التدريب فى المرحلة الثانية مركزا على التدريب المتقدم والادارة العليا

البيئة والصحة العامة

٩ من الضروري سرعة توفر المعلومات عن الصحة العامة وتقييمها حتى يمكن اعداد البرامج اللازمة للوقاية وتحسين المستوى الصحى العام نتيجة لتحسين مستوى خدمات المياه وعدم توفر خدمات الصرف الصحى

١٠ الاسراع في انشاء ادارات للصحة والسلامة المهنية على كل مستوى مع ضرورة اعداد خطط الوقاية واعداد دراسات بيئية وسلامة صحة مهنية ليس فقط لتقليل الحوادث ولكن أيضا لزيادة انتاجية العاملين وتحسين مستوى الاداء مع توافر عناصر مراقبة وتفتيش للمحلفات الصلبة السامة والغير سامة

١١ التنسيق مع مشروع ED/CM لدراسة وسائل حديدة قليلة التكاليف لتنفيذ مشروعات صرف صحي للمناطق الريفية الغير محدومة مع دراسة بدائل تتكامل مع خطة التدريب

١٢ نشر برامج توعية العملاء حيث أن المرحلة الاولى استهدفت توعية العملاء على التكلفة الاقتصادية للخدمات ومن الضروري في المرحلة الثانية الاستمرار في احراء الندوات على نمط ما تم تنفيذه في برامج توعية سيدات المجتمع وضرورة تنمية دور الجمعيات الاهلية في ذلك

٢ بحث موافقة الورارات المعنية(التحطيط- المالية) للحصول على امتيار حاص بفائدة القروص حيث يمكن للهيئات بموجب هدا الامتيار الحصول على قروص بدون فوائد حلال الفترة الانتقالية لتمويل التوسعات للمشروعات وتدبير المعدات الرئيسية للتشعيل والصيانة وبعد الفترة الانتقالية يمكن الاقتراص بفائدة حاصة محدودة

٣ ان نقل مسئولية توريد وتركيب العدادات الكبرى للمحطات تسبب فى تاحير توريد وتركيب عدادات قياس التصرفات الكبرى للمحطات ،حيث ان عدم تركيب هده العدادات قد تسبب عنه عدم امكانية قياس التصرفات الحقيقية للمحطات بدقة،والدي يترتب عليه عدم دقة حساب التسرب فى الشبكة وفي المحطة نفسها ومما يترتب عليه عدم دقة حساب تكلفة التشعيل والصيانة وعدم السيطرة على حسابات الفاقد فى الشبكة نتيجة الوصلات الحلسة

٤ سرعة توريد أجهزة قياس التسرب في الشبكة والتي تتناسب كفاءتها مع الاعمال الكبيرة والصعوط العالية في الشبكة وحطوطها الرئيسيةحيث ان المتوفر حاليا اجهزة غير كافية وبكفاءة محدودة نسبيا وهى لا تصلح الا لقياس التسرب في وصلات المنازل والدي تم توريدها مسبق لمعرفة مشروع ED/CM

٥ التوسع في تنفيد حدمات تركيب العدادات لكافة المشتركين واجراء الاصلاحات الضرورية والتفتيش الدوري على صلاحية العدادات وبحيث تشمل هده الحدمات جميع العملاء بما فيها كبار المشتركين، وسوف تكون المحافظة على المياه المتحةهى النتيجة الطبيعية لتركيب العدادات ومما يعطي الثقة لدى العملاء فى قيمة فواتير الاستهلاك

<u>لامركزية الادارة</u>

٦ مراجعة حطط تدبير الافراد وشغل الوظائف الشاغرة بالقيادات اللامركزية والافراد اللازمين لاداء المهام حيث من الملاحظ انه توجد عمالة زائدة غير مدربة في كل من هيئات الدقهلية واسوان، ويوجد نقص واضح في ادارتى الاقصر وجنوب سيناء وخاصة في تخصصات المهندسينوالمحاسبين والعمالة الفنية المدربة

٧ ومن الواضح انه توجد صعوبة في الحصول على الموافقات اللازمة لاستحداث وظائف جديدة وتمويلها ويمكن التوصية بوجود خطة توظيف ترتكز على الاحتياجات الفعلية وكدا استحداث افكار جديدة للحوافز تؤدي الى زيادة انتاجية العاملين (مثال تنفيد أعمال لصالح الغير كما يحدث في المنصورة)

١١ تم تطوير المراقبة المالية وتم اعداد مجموعات عمل مالية مدربة في حسابات المرتبات الشهرية للعاملين ،والفواتير،وحساب التكاليف،المحاسبة،ادارة المخازن ويتحه جميع المرافق بالمحافظات والمدن المختلفةالى الميكنة الكاملة

١٢ امكن انشاء مراكز المعلومات على مستوى جميع المدن الثانوية وجميعها مجهزة بالمعدات وتم تدريب العاملين فيها على اعلي مستوى

١٣ اعداد الفواتير من خلال مراكز اعداد الفواتير المجهزة بالحاسبات الآلية اعطى الثقة للعملاء وساعد على زيادة المتحصلات ،كما ساعدت مراكز خدمة العملاء على إيجابية التعامل مع العملاء

١٤ امكن رفع الكفاءة الانتاجية للمتدربين من خلال مراكز التدريب التي تم اعدادها وتجهيزها بطريقة ممتازة و تزويدها بمستلزمات التدريب ،ويمكن الاستفادة من هذه المراكز في تدريب العاملين في مواقع اخرى ليست فيها مراكز تدريب مماثلة

١٥ ترتب على تأخير تقييم لآثار المشروع على المستوى الصحي احتمالات تاخير اعداد وتصميم برامج التوعية والتعليم الصحي المناسبة،وحيث انه من الصعب قياس مدى تأثير المشروع على الصحة العامة فانه من الضروري بذل مجهودات رائدة لاعداد البرامج لتوعية ورفع مستوى الوعي الصحي للمواطنين

التوصيات

الملاءمة المالية واستعادة التكاليف

١ بحث الامكانية من الناحية القانونية والسياسات لاعطاء الهيئات الاقتصادية صلاحيات رفع التعريفة سعر المياه والصرف الصحي لتغطية جزء كبير من تكاليف التشغيل والصيانة ،وكذا الموافقة على اعطاء الهيئات فترة انتقالية لسهولة تحول هذه الهيئات لاعتمادها ذاتيا على مواردها وتغطية ما كان يمول بمعرفة وزارة المالية وكذا استعجال موافقة الجهاز المركزي للتنظيم والادارة على الهياكل التنظيمية مع تمويل الوظائف وكذا مخصصات الحوافز حيث ان عدم اعتماد الهياكل من الجهاز المركزي للتنظيم و الادارة يؤثر على نجاح المشروع

معظم مشتملات حطة العمل في موعدها وبعضها قبل الموعد المحدد لدك في الجدول الزمني ولحة تقييم المشروع على اعتقاد راسخ بان الوضوح وهيكل التعاقد على المشروع كان حافزا كبيرا على نجاح تنفيذ المرحلة الاولى والتى ادت ايضا الى اختصار زمن التنفيذ لمدة عام وكذلك وفر في التكلفة وزيادة في كفاءة التنفيذ

الملاءمة المالية واستعادة التكاليف

٧ على مدار تنفيذ المشروع فانه من الصعب الحصول على تغطية كاملة لتكاليف التشغيل والصيانة في كل المرافق مع نهاية مدة المشروع بينما يتضح ان هناك تقدما واضحا على مسار تنفيذ اعمال الصيانة الوقائية،تحميع متحصلات الفواتير،اتاحية الافراد وكذا ادارة المرافق ويظل تحقيق كامل تكاليف التشغيل والصيانة هدف صعب الوصول اليه مع نهاية عام ٢٠٠٣

٨ توضح البيانات انه بينما تزيد المتحصلات فان التكاليف تزداد ايضا ويكون السؤال دائما كيف يتم تضييق الفجوة لتحقيق استقلالية الادارة واعتمادا على مواردها الذاتية، كما توضح أن نسبة متحصلات العائد تتراوح ما بين ٤٥%الى٧٠% من تكلفة التشغيل وان النقص يرجع الى العجز في تسعير تكلفة انتاج المياه والصرف الصحي

٩ تعتبر اللوائح والقوانين الحكومية المتعلقة بالتعريفة حجر عثرة في وضع تعريفة مناسبة كما يتضح من الدراسة التي يتم اجراءها من مشروع(LIR) الممول من هيئة المعونة الامريكية كما انه هناك ايضا من اللوائح الخاصة بتنظيم العمالة ما يسبب زيادة التكاليف

١٠ تعتبر كمية المياه المنتجة الغير محاسب عليها ايضا عامل هام من عوامل عجز الموارد وهذه الكميات الغير محاسب عليها تكون نتيجة للتسرب من الشبكة وكذا الوصلات الجلسة الغير قانونية وهى تمثل حوالي ٤٠ % من حجم الانتاج وتوضح دراسات البنك الدولي لعدد٧٥ دولة نامية ان نسب التسرب تتراوح من ١٧%حتى٦٢%وتقل هذه النسبة في الدول النامية الصناعية لتكون حوالي ١٥%

الادارة اللامركزية

٢ معوقات التنفيذ لاي من البنود لم تكن بسبب من هيئة المعونة الامريكية او المقـــاول ولكنها تحت اساسا من ديناميكية العمل داخل بعض الاجهزة الحكومية نتيجة رغبة هـــذه الاجهزة عدم اتخاذ اي اجراءات حتى تنتهي الدراسة الجارية لتطوير قطاع المياه والصرف الصحي من خلال مشروع هيـة المعونة الامريكية (LIR)

٣ مستوى التقييم

البيان	محافظة الدقهلية	اسوان	الاقصر	جنوب سيناء
تنفيذ خطط العمل	جيد جدا	جيد جدا	مقبول	جيد
التنظيم وشغل الوظايف	ممتاز	جيد جدا	جيد	دون المتوسط
الموارد/التكاليف	ممتاز	جيد جدا	جيد	دون المتوسط
مراكز المعلومات	ممتاز	جيد جدا	ممتاز	جيد جدا
التشغيل والصيانة	جيد	جيد جدا	ممتاز	جيد
مراكز التدريب	جيد جدا	ممتاز	جيد	جيد جدا
مراكز خدمة العملاء	جيد جدا	ممتاز	جيد	مقبول
التقييم العام	**جيد جدا**	**جيد جدا**	**جيد**	**مقبول**

٤. تم تنفيذ عدد ٧٢ من اجمالي ١٠٧ من ركائز متطلبات خطة العمل وهى تمثل نسبة ٦٧% من المطلوب وذلك حتى منتصف عام ١٩٩٨ ويرجع عدم التنفيذ الكامل لاسباب تتعلق بتأخير اتخاذ القرار بخصوص ادارة المرافق بمدينة الاقصروكذا عدم امكانية اتخاذ قرارات خاصة برفع تعريفة سعر المياه حتي الآن

٥ تم تحقيق عدد(٢٣) من الركائز المطلوبة من اجمالى عدد(٢٦) الخاصة بالمتطلبات الآزمة بالموافقة على اعمال الانشاءات وهى تمثل ٨٨% استكملت بعد ذلك لتكون ١٠٠% وبذلك تحققت الاشتراطات اللازمة لتمويل اعمال التنفيذ للانشاءات

٦ مؤشرات النتائج التي تم اعدادها في ركائز خطط عمل كل محافظة حققت امكانيـــة قياس النجاح الذي تم تحقيقه في انشطة الدعم المؤسسي والتنظيمي وقد قام المقاول بتنفيذ

١ فحص تاثير تنفيذ المرحلة الاولى من المشروع على المدى والمرافق على ضوء السياسات وخطط العمل التي اقررها المشروع

٢ تحديد المشاكل التى تستدعى تاخير او منع تنفيذ اي مرحلة من مراحل خطة العمل التي تم اعدادها بمعرفة المقاول

٣ تقديم المعاونة بالاتصال مع اجهزة الحكومة المصرية لعرض المشاكل و العمل على حل المشاكل التى تؤخر او تعوق مراحل تنفيذ خطة العمل

٤ تقييم مدي كفاءة الهيئات الاقتصادية لكل من محافظتى الدقهلية واسوان لتنفيذ مخططات اعمال تشغيل وصيانة مرافق الهيئات

٥ تقييم مدى كفاءة تاثير برامج التدريب في تحقيق الاهداف

٦ تقييم مدى التقدم في تحقيق أهداف المشروع بصفة عامة

٧ اعداد التوصيات التي يمكن ان تقوم بها كل من هيئة المعونة الامريكية وحكومة ج م ع في الوصول الى تحقيق اهداف المشروع

٨ اعداد تقرير تقييم مشتملا على الوضع الحالي والنتائج والتوصيات

وقد بدات ادارة اعمال التقييم اعتبارا من ١٨ ابريل ٩٩ حتى ٢ يونيو ٩٩ ،وقد تكون طاقم التقييم من خبراء في التنمية الادارية والدعم الاداري والتطبيقي وكذلك خبراء الشئون المالية والهندسية وتم خلال الاسبوع الاول اجراء مقابلات مع المسئولين عن المشروع والمقاول،كما قام فريق العمل بزيارات ميدانية الى جميع المدن الثانوية التي يشملها المشروع من خلال محافظات جنوب سيناء -الدقهلية -الاقصر-اسوان ، وقد استغرقت هذه الزيارات الميدانية حوالي عشرون يوما. وقد تم اجراء اجتماعات متابعة ومناقشات على طول مدار الزيارات الميدانية مع مسئولي هيئة المعونة الامريكية - كما شملت باقي فترة التقييم العديد من الاجتماعات لمناقشة النتائج واستكمال باقي المقابلات مع المسئولين من حكومة ج م ع

<u>النتائج الاساسية لاعمال التقييم</u>

<u>عام</u>

١ حققت هيئة المعونة الامريكية والمقاول نجاحا كبيرا في تنفيذ اهداف المشروع وفى التوقيتات المحددة للحصول على هذه النتائج

وتعتبر نتائج هذا المشروع هي

١ مرافق للمياه والصرف الصحى تعمل على تحسين طروف البيئة للمدن الثانوية

٢ ادارة تعتمد على ذاتها في تمويل اعمالها من مصادرها الذاتية من تحصيل تعريفه المياه و مصادر اخري

٣ والمعاونة التي تقوم بمعرفة هيئة المعونة الامريكية تعطي ثلاث انشطة رئيسية

٤ المعاونة الفنية والدعم الاداري والمؤسسي

٥ إعداد التصميمات الهندسية والاشراف على التنفيذ

٦ أعمال التنفيذ لما يشتمل عليه المشروع

يتم تنفيذ الجزء الاول من المشروع وهو المعاونة الفنية والدعم الاداري من خلال عقد للدعم الاداري والمؤسسي مع شركة كيموتكس انترناشيونال وهذا هو موضوع التقييم حاليا

أما الجزء الثاني والثالث سوف يتم تنفيذه من خلال عقد هندسي منفصل مع شركة كامب درسر اند ماكاى انترناشيونال والذي سوف يتضمن الاعمال الهندسية و الانشائية للمرافق الي جانب بعض الخدمات الخاصة بالدعم والتطوير الاداري والمؤسسي

وقد تم توقيع عقد الدعم الفني والاداري والمؤسسي بتاريخ ١٩٩٥/٨/٢٢ وبدات اعمال تنفيذ المرحلة الاولى في اغسطس ١٩٩٥ واستمرت لمدة ثلاث سنوات وتشتمل على ٢٣ مهمة تنفيذية كما بدأت المرحلة الثانية في ٣ يوليو ١٩٩٨ وسوف تستغرق خمس سنوات على ان ينتهي المشروع بكامله في عام ٢٠٠٣

<u>اسلوب ونقاط التقييم</u>

قام فريق التقييم بوضع خطة للاطلاع على التقارير -الصادرة من المكتب الاستشاري وعمل المقابلات الشخصية والزيارات الميدانية لجميع المدن ومناقشة المسئولين وكل من له اتصال بالمشروع سواء من الحكومة المصرية - الهيئات- مسئولي المرافق - المقاول- العاملين بالمشروع

<u>مهام فريق تقييم المشروع</u>

ملخص تقرير

تقييم اعمال المرحلة الاولى لمشروع المدن الثانوية

نبذة تاريخية

تم تصميم مشروع المدن الثانوية عام ١٩٩٤ بهدف وضع اسس ثابتة لتحسين المستوى الصحى والظروف البيئية فى بعض المراكز الحضارية الصغرى فى مصر ويهتم مشروع المدن الثانوية بتطوير ومد خدمات المياه والصرف الصحى في المراكز الحضارية المختارة فى مختلف المناطق الجغرافية ذات الكثافة السكانية العالية و تقوية القدرات المؤسسية والادارية و تدعيم مرافق المياه والصرف الصحي في اعمال التشغيل والصيانة وتتفق هذه الاهداف مع سياسة هيئة المعونة الامريكية في ضرورة احراء التطوير المؤسسي الذي يتطلب اجراءه في جميع المشروعات والتي تؤكد على الفوائد التي يمكن اكتسابها بعد تقديم هذه المعاونة من خلال تمويل هيئة المعونة الامريكية

وبعد احراء دراسة و مسح لاكثر من مائتي مدينة والتي يتراوح عدد سكان كل منها ما بين ٢٠,٠٠٠ الى ٦٥٠,٠٠٠ نسمة والتي هى في حاجة ماسة الى انشاء او تطوير خدمات المياه والصرف الصحي ومن خلال عدد ٢٥ معيارا للاختيار تم وضعها بمعرفة هيئة المعونة الامريكية ،تمكنت الهيئة من اختيار مدن المنصورة /الاقصر/شرم الشيخ/بنى سويف/كوم امبو/دراو/ناصر لتنفيذ مشروع المدن الثانوية كونت التسع مدن السابق ذكرها في بداية المشروع اجمالي تعداد سكاني يقرب من ١,٦ مليون نسمه

ولتحقيق هذه الاهداف قام مشروع المدن الثانوية بتوظيف خطة استراتيجية من ثلاث مراحل تشمل الآتى

١ تصميم خطط عمل للتقويم مشتملة على ركائز اساسية

٢ متابعة اجهزة الحكومة المصرية لتنفيذ خطط العمل المقترحة

٣ تعهد بدء تنفيذ اعمال البنية الاساسية طالما تم تنفيذ الركائز الاساسية المطلوبة في خطط العمل

ومع نهاية عام ٢٠٠٣ فانه من المتوقع ان يكون قد تم الانتهاء من تنفيذ اعمال البنية الأساسية للمياه والصرف الصحي وتشغيلها، وتجرى اعمال صيانتها بمعرفة ادارة مسئولة معتمدة على قدراتها الذاتية

EXECUTIVE SUMMARY - ARABIC TRANSLATION

MID-TERM EVALUATION OF THE INSTITUTIONAL DEVELOPMENT SERVICES FOR THE SECONDARY CITIES PROGRAM

Presented to
USAID/Cairo

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